EXXON OFFICE SYSTEMS

500 Series Information Processor

Operator's Reference Manual

UPDATED THROUGH
SOFTWARE REVISION 2.4.5
AND
LEVEL 3FMS/1 SOFTWARE
WITH
HARD DISK OPTION
100 SERIES PRINTER OPTION
965 PRINTER OPTION

HARRIS

X-TE/7-S0404 10/85

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CLASS A COMPUTING DEVICE

WARNING: This equipment generates and uses radio frequency energy. If not installed and used properly, i.e., in strict accordance with the user manual, it may cause harmful interference to radio communications. It has been tested and found to comply with the limits of a Class A computing device pursuant to Sub-part J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case users, at their own expense, will be required to take whatever measures may be necessary to correct the interference.

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SECTION 1
SYSTEM CONCEPTS

Overview and General Description

The Exxon 500 Series is a powerful line of software-based information processing systems that will give you numerous capabilities for operation. With the 500 Series Information Processor, you will be able to quickly and easily input, edit, then permanently record documents for future use. Also, many of your more tedious tasks will be handled with ease using the 500's full-line of features.

Word Processing Advantages

A word processing system can be an asset to your office environment because with it you can:

- Produce error-free quality documents
- Eliminate repetitive typing
- Easily input text
- Store documents on magnetic media for later revisions
- Format text with ease
- Do fast and simple editing

System Configurations

There are two models in the 500 Series to specifically meet your needs; the Model 510 and the Model 520. The basic features on these models include the following:

Model 510

Single Disk Drive (can go to 2)
64K Memory
35 cps Printer
Basic Text Editing
Columns Mode
Footnote Capabilities
Glossary Function
Document Assembly
Forms Mode
Letter Merge
Global Search and Replace
Records Processing

Model 520

All of the 510 Features *PLUS...*
Dual Disk Drives
128K Memory
Selection by Criteria
Sort
Dictionary
Mathematics Package
Keystroke Sequence Programming

The 500 Series is easy to use and understand. Special operator prompts appear on the screen to guide you through the different functions. Also, an EXPLAIN feature is available for additional information on functions when needed.

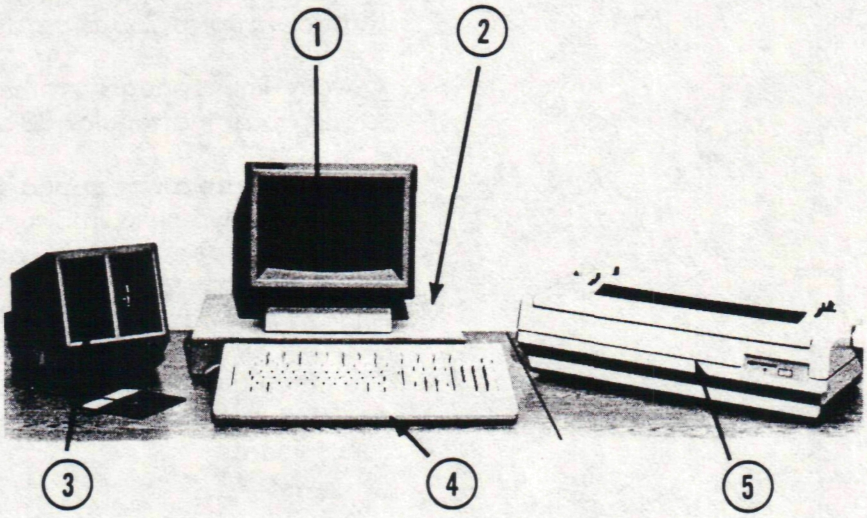
Besides these, other benefits include: automatic prompts for storage so you cannot lose text, automatic indexing of documents for easy access, modular system with separate components for easy mobility, a variety of capabilties, upgradeable options and MORE.

The System Components

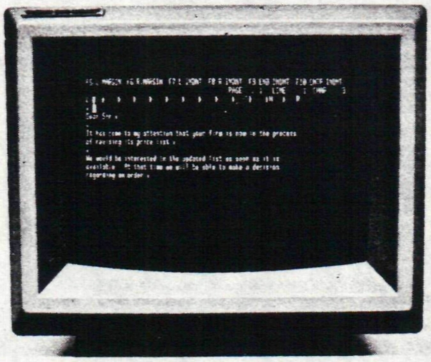
The 500 Series Information Processor has five major components which include:

1. Display Screen
2. Central Processing Unit (CPU)
3. Disk Drive(s)
4. Keyboard
5. Printer

Because of the mobility of each component, the system can be arranged in a variety of configurations to best meet your needs.



Display Screen



The screen consists of a 20-line display formatted so prompts can appear at the top of the screen to guide you through many of the functions. A format line is also displayed to show the left and right margins and tab settings, leaving 17 lines of screen space for text entry.

When the screen is full, as you continue to type, the top line of text will automatically move up and off the screen to make room for the next line being typed. This method of moving text off the screen is called vertical scrolling. The text that vertically scrolls off the screen is stored in a special system memory and can easily be seen again at any time.

Text on the screen not only scrolls vertically, it scrolls horizontally. The cursor can move past the displayable screen margin of 80 characters up to 255 character positions to the right.

A wavy line appears on the screen to indicate when you have scrolled past the regular 80-character displayable screen.

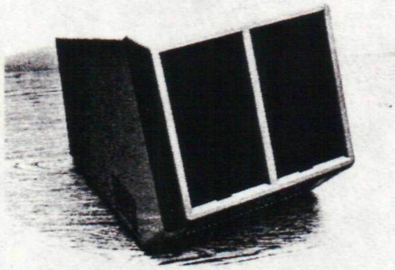
A small square cursor appears on the screen and moves from left to right as you type text. This cursor is a pointer to help you locate and identify the specific text you are working on. A status line, which tells you the exact page, character position and line on which the cursor is located, is displayed at the top of the screen.

The entire display screen is based on a tiltable console so you can adjust the screen height and rotate the angle for your own convenience.

Central Processing Unit (CPU)

The Central Processing Unit, also know as the CPU, is the base on which the tiltable screen display unit rests. The CPU houses the special circuits that control the interpretation and execution of all the information processing instructions. The ON/OFF switch for the system is located on the back of the CPU.

Disk Drive(s)



The disk drive is the unit that holds the floppy disk in place. Each drive has a small door to secure the disk in the drive. There is also a red light on the drive which indicates disk activity in that drive. On the dual disk system, the left disk drive is referred to as Disk Drive "a" and the right drive is referred to as Disk Drive "b". With the dual disk drive model, you will be able to work with approximately twice as much stored text, as well as have the ability to duplicate disks.

EXXON OFFICE SYSTEMS

500 Series Information Processor

High Profile/Low Profile Keyboard Comparison

High Profile/Low Profile Keyboard Comparison

The instructions in the 12 booklets in the 500 Series Learning Kit were written for the EXXON High Profile Keyboard. The outline below shows the differences between the High Profile Keyboard and the Low Profile Keyboard to assist you in completing the exercises in the 12 booklets.

The names of a few of the keys have been changed on the Low Profile Keyboard:

High Profile Keyboard	**Low Profile Keyboard**
CHAR OUT	DEL CHAR
CHAR ENTER	INSRT
DEL SCRN	DEL MEM
PRINT SCREEN	PRINT

The following is a list of keys, which have been added to the Low Profile Keyboard, that do not appear on the High Profile Keyboard.

MSGS
NEW DOC
RPRNT PAGE
CONT PRINT
ACK (CODE + MSGS)
DOC (CODE + RPRNT PAGE)
F6 (MAIL)
CODE + F11 (SYSTEM UTILITIES

Used only on the EXXON 8400 Series System

ALT CHAR - Used with the EXXON Scientific Software Package to gain access to scientific characters, and is also used with CP/M as an Escape key.

CODE + F3 (FRAME OPERATIONS) - Used with EXXON Frame Operations Software only.

REC - For future use.

TAB (NUM + MSGS) - Standard TAB key.

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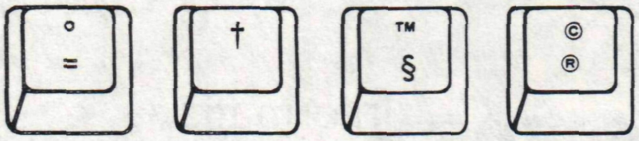
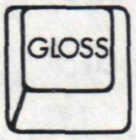
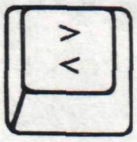
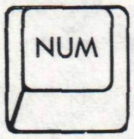
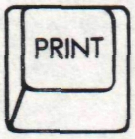
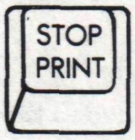
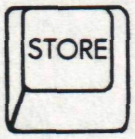
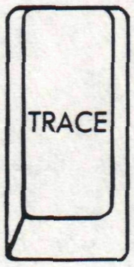
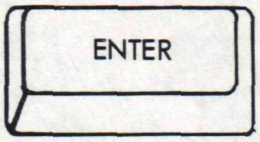
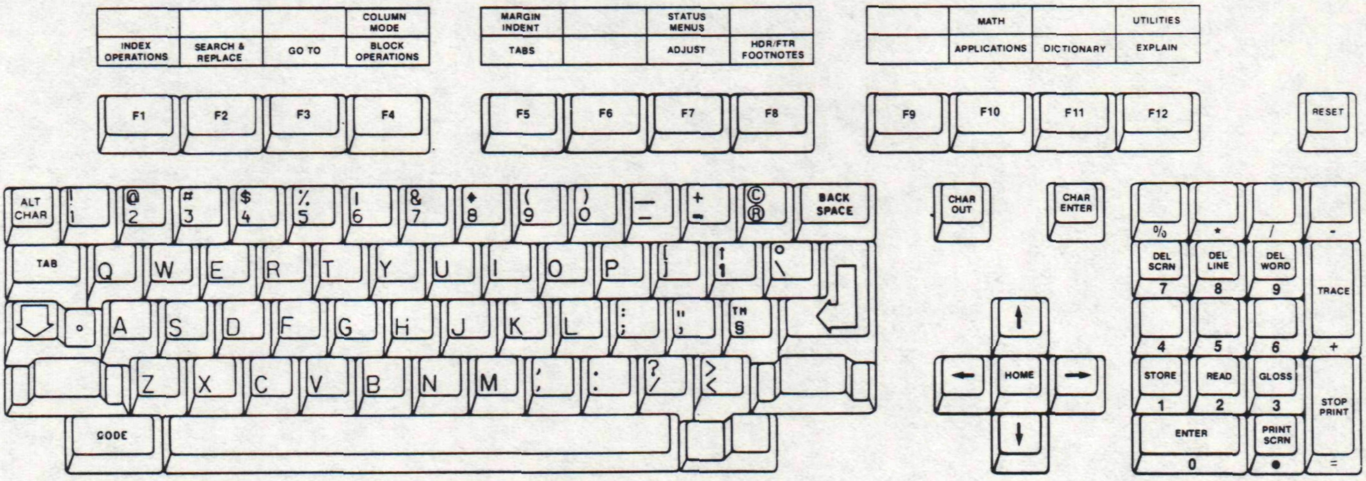
The following keys have been moved to different locations on the Low Profile Keyboard:

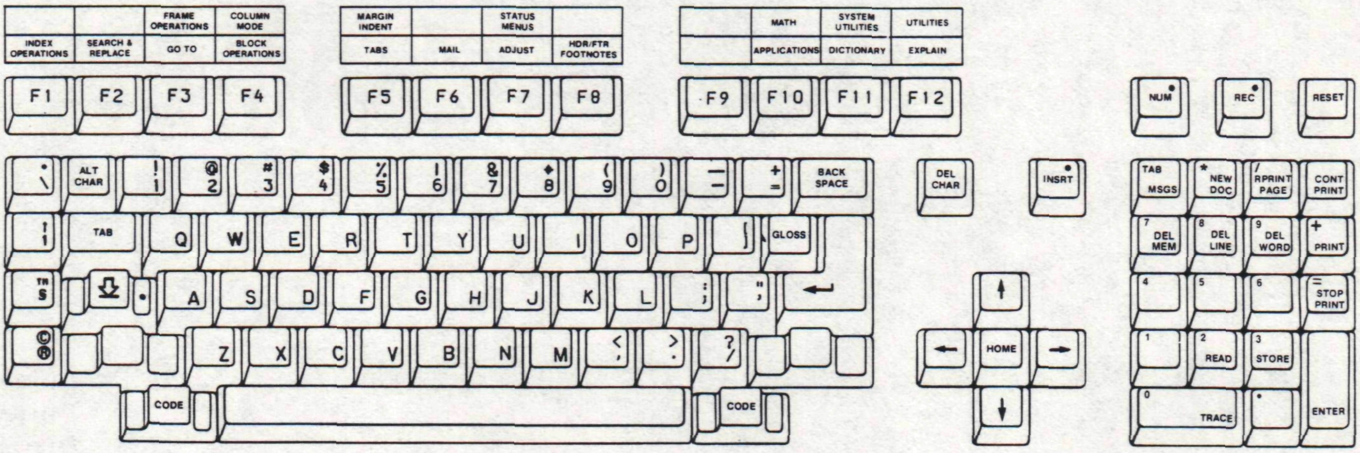
Key	**Location**
	The left side of the Modified Typewriter Keyboard.
	The right side of the Modified Typewriter Keyboard, next to the RETURN key.
	The period (.) key. The comma (,) key.
	The top of the Screen/Numeric Keypad, above the MSGS key.
	Second row of the Screen/Numeric Keypad, under the CONT PRINT key.
	Third row of the Screen/Numeric Keypad, under the PRINT key.
	Fourth row of the Screen/Numeric Keypad, next to the READ key.
	Bottom left corner of the Screen/Numeric Keypad.
	Bottom right corner of the Screen/Numeric Keypad.

High Profile Keyboard



COLUMN MODE
INDEX OPERATIONS
SEARCH & REPLACE
GO TO
BLOCK OPERATIONS
MARGIN INDENT
STATUS MENUS
TABS
ADJUST
HDR/FTR FOOTNOTES
MATH
UTILITIES
APPLICATIONS
DICTIONARY
EXPLAIN
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12
RESET
ALT CHAR
BACK SPACE
CHAR OUT
CHAR ENTER
TAB
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
CODE
HOME
DEL SCRN
DEL LINE
DEL WORD
TRACE
STORE
READ
GLOSS
STOP PRINT
ENTER
PRINT SCRN

Low Profile Keyboard



FRAME OPERATIONS
COLUMN MODE
INDEX OPERATIONS
SEARCH & REPLACE
GO TO
BLOCK OPERATIONS
MARGIN INDENT
STATUS MENUS
TABS
MAIL
ADJUST
HDR/FTR FOOTNOTES
MATH
SYSTEM UTILITIES
UTILITIES
APPLICATIONS
DICTIONARY
EXPLAIN
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12
NUM
REC
RESET
ALT CHAR
BACK SPACE
DEL CHAR
INSRT
TAB MSGS
NEW DOC
RPRINT PAGE
CONT PRINT
TAB
Q W E R T Y U I O P
GLOSS
DEL MEM
DEL LINE
DEL WORD
PRINT
A S D F G H J K L
STOP PRINT
Z X C V B N M
HOME
READ
STORE
CODE
CODE
TRACE
ENTER

Keyboard

The 500 Series keyboard is set up with conveniently located keys for ease of operation and efficiency.

This keyboard has 96 individual keys arranged into 5 separate groups which are:

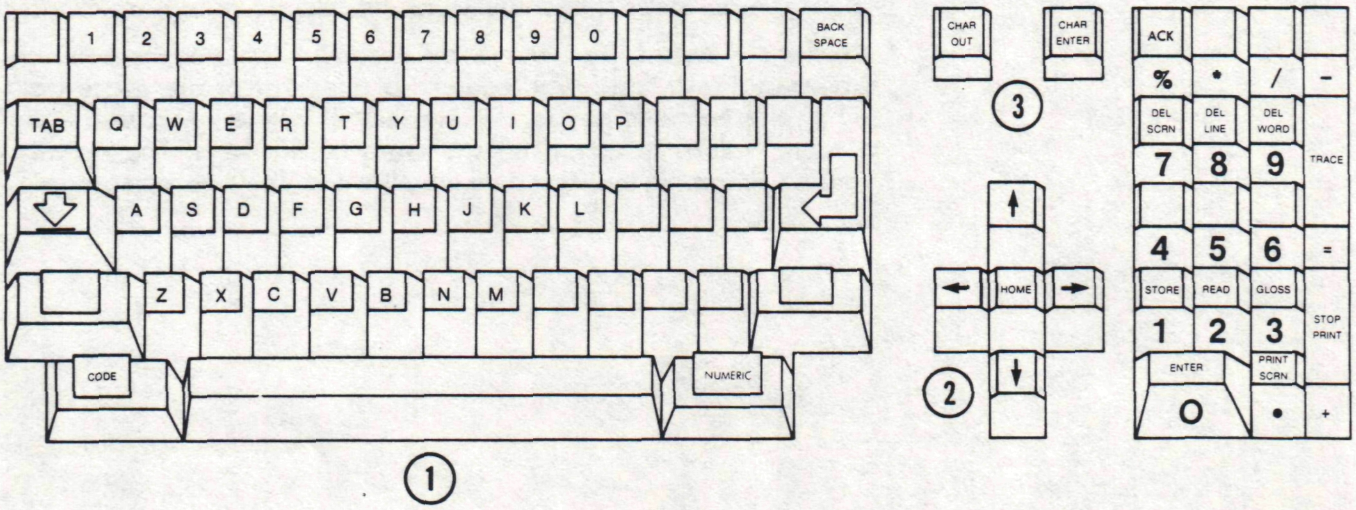
1. Modified Typewriter Keys
2. Cursor Control Group
3. Editing Keys
4. Screen/Numeric Keypad
5. Function Keys

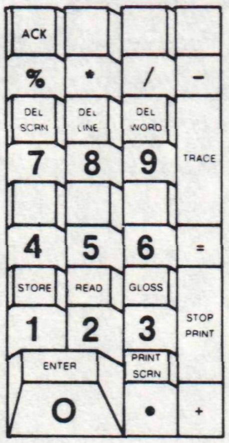
1. Modified Typewriter Keys: The majority of the keys on the keyboard are contained in the Modified Typewriter Keys. These keys are set up like a standard typewriter, allowing you to type the characters on the display screen or on paper inserted in the bidirectional printer as required. Also included on the Modified Typewriter Keys are the CODE key and the NUMERIC key. The CODE key is used in conjunction with other keys to access special system operations. The NUMERIC key is used to access the numeric keypad.

2. Cursor Control Keys: The Cursor Control Keys, located to the right of the Modified Typewriter Keys, consist of five keys which aid in the movement of the cursor on the screen.

The HOME Key and the four arrow-marked keys in this group allow you to move the cursor up, down, left, right or to various locations within a document. These keys are also used to scroll through existing text and the Index.

3. Editing Keys: **Located above the Cursor Control Keys are two cursor editing keys: CHAR ENTER (Character Enter) and CHAR OUT (Character Out). They are used to perform basic text editing functions. CHAR ENTER is used to insert new text editing functions. CHAR ENTER is used to insert new text when editing. CHAR OUT is used for text deletion.**


1 2 3 4 5 6 7 8 9 0
BACK SPACE
TAB
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
CODE
NUMERIC
①
CHAR OUT
CHAR ENTER
③
HOME
②
ACK
% • / −
DEL SCRN
DEL LINE
DEL WORD
TRACE
7 8 9
4 5 6 =
STORE
READ
GLOSS
STOP PRINT
1 2 3
ENTER
PRINT SCRN
0 • +



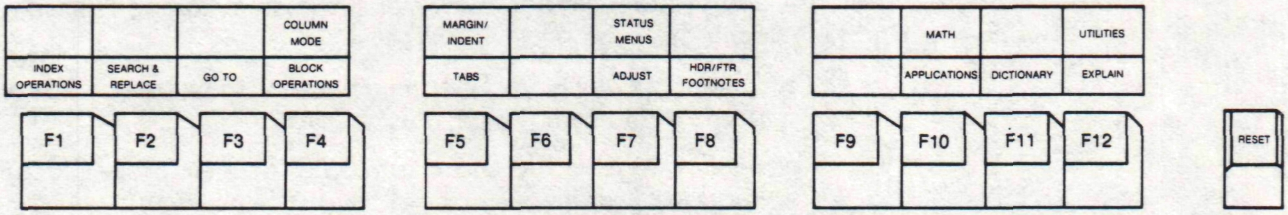
4. Screen/Numeric Keypad: This section of the keyboard performs three (3) functions, depending on the specific requirements you may have. The Screen Keys, which perform the function inscribed on the top of the keycaps, are the standard values that are in effect until you use the Numeric Keypad function. When the Numeric Keypad is used, these keys represent the numeric values indicated on the front side of the key or the specific line drawing keys when in that mode of operation.

Screen Keys: The Screen Keys are the standard values in effect. Each key is explained below:

- ACK: Used when printing a document. When PRINT SCRN is pressed to print a document, the prompt **Insert page in the printer and press ACK.** appears. Hold down the CODE key and press ACK to print the document.
- Del Scrn (Delete Screen): Clears the entire screen of text, as well as text that has scrolled but has not yet been stored. This can be up to about two pages.
- Del Line (Delete Line): Deletes the line where the cursor is located, including the carriage return. Text adjusts automatically.
- Del Word (Delete Word): Deletes the word on which the cursor is placed, including the space and any punctuation following the word. The cursor is then on the first letter of the next word.
- Store: Stores a document on the disk.
- Read: Recalls header/footer/footnote text for you to view, or edit. Also, recalls text during special operations such as Document Assembly and Records Processing.
- Gloss (Glossary): Recalls a term from the glossary.
- Enter: Acts as an affirmation to initiate a command.
- Print Scrn (Print Screen): Issues a print command to print the entire document that is on the screen.
- Trace: Initiates a special screen operation which allows you to see all formatting instructions.
- Stop Print: Stops the printer and cancels the print instructions.

Numeric Keypad: The Numeric Keypad is activated by pressing the special NUMERIC Key located to the right of the space bar. When this Numeric Keypad is selected, all of the keys assume the numeric values inscribed on the front of the keys. The numeric values will remain in effect until the NUMERIC Key is pressed again.

5. Function Keys: There are 12 Function Keys, located above the Modified Typewriter Keys, which are used to perform various functions on the system. A special grid is located above these keys as part of the keyboard to help you identify their specific functions (See Appendix C). The features along the bottom row can be accessed by pressing the function key directly. Those features on the upper line are entered by holding down the CODE key in conjunction with pressing the appropriate Function Key. Each key is multi-functional in nature and can be used for different tasks. Special prompts on the screen are used to indicate what role the keys play in the different functions. Also included with the row of Function Keys is a RESET key. This key is used to stop an operation if necessary.


COLUMN MODE
INDEX OPERATIONS
SEARCH & REPLACE
GO TO
BLOCK OPERATIONS
MARGIN/ INDENT
STATUS MENUS
TABS
ADJUST
HDR/FTR FOOTNOTES
MATH
UTILITIES
APPLICATIONS
DICTIONARY
EXPLAIN
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12
RESET

Printer

A 35 cps bidirectional printer is attached to the unit to provide excellent quality printed documents. This daisywheel printer is capable of printing in a variety of different typestyles by using interchangeable printwheels. Also, an individual control and light on the printer is available to alert you to different system operations.

The 500 Series printer will print either in the foreground or in the background, depending on what you select. With foreground printing, the text that is displayed on the screen can be printed immediately. Background printing will enable you to print a document stored on the disk while you continue working with other text on the display screen.

System Safeguards

The system will work properly if you use all of the components correctly and follow the system safeguards listed below:

1. Do not drop any paperclips, rubberbands, pens, jewelry, etc. into the printer.
2. Be sure the disk drives are kept free and clear of foreign objects. Do not insert anything other than a mini-disk into the drive.
3. Be sure the system and printer power is turned off when plugging the power cord into an electrical outlet.
4. Always keep liquids away from the system components to avoid spillage.
5. Do not use any type of cleaning fluids on the system. Wipe with a dry towel to remove any dust or dirt.
6. Be sure to attach component cables at their proper locations. Read the instructions first before attaching them.
7. Do not place papers, books, cups, etc., on top of or near the sides of your equipment.
8. Position your system components so that none of the vents on any of the components are blocked in order to allow for adequate airflow and avoid overheating.
9. Electrical systems require separate power supplies. Do not plug other electrical equipment into the outlet used for your information processor.
10. Do not service the equipment yourself. Always call a qualified service representative.
11. Leave the disk drives *open* when not in use.

Keyboard

The 500 Series Low Profile Keyboard is set up with conveniently located keys for ease of operation and efficiency.

The keyboard has 99 keys arranged into 5 separate groups which are:

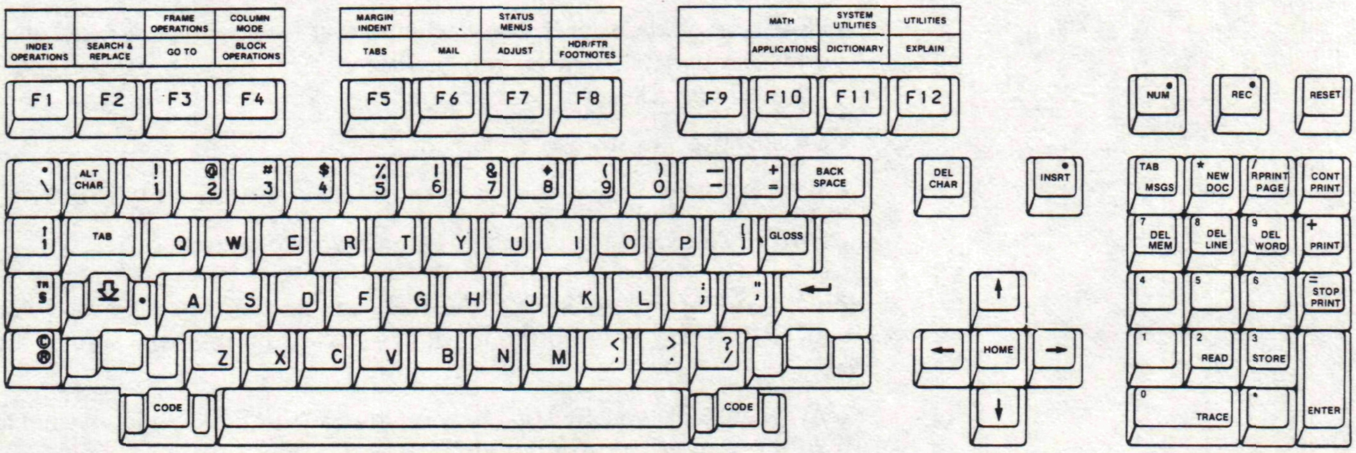
1. Modified Typewriter Keys
2. Cursor Control Group
3. Editing Keys
4. Screen/Numeric Keypad
5. Function Keys

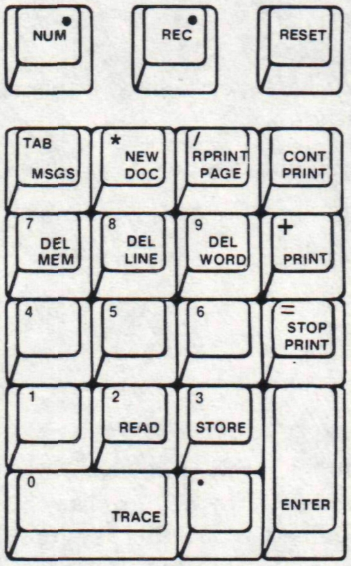
1. Modified Typewriter Keys: The majority of keys on the board are Modified Typewriter Keys. These keys are set up like a standard typewriter. Also included in the Modified Typewriter Keys are the CODE keys, the ALT CHAR key, and the GLOSS key. The CODE key is used in conjunction with other keys to initiate special system operations. The ALT CHAR key is used with the Scientific Software Package to gain access to the scientific characters, and is also used with CP/M as an Escape key. The GLOSS key is used to recall a term from the glossary.

2. Cursor Control Keys: The Cursor Control keys, located to the right of the Modified Typewriter Keys, are five keys which move the cursor on the screen.

The HOME key and the four Arrow Keys in this group move the cursor up, down, left, right or to various locations within a document. These keys are also used to scroll through existing text and the Index.

3. Editing Keys: Located above the Cursor Control Keys are two cursor editing keys; DEL CHAR (Delete Character) and INSRT (Insert). They are used to perform basic text editing functions. INSRT is used to insert new text when editing. The DEL CHAR key is used to delete text.


INDEX OPERATIONS
SEARCH & REPLACE
FRAME OPERATIONS
GO TO
COLUMN MODE
BLOCK OPERATIONS
MARGIN INDENT
TABS
MAIL
STATUS MENUS
ADJUST
HDR/FTR FOOTNOTES
MATH
APPLICATIONS
SYSTEM UTILITIES
DICTIONARY
UTILITIES
EXPLAIN
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12
NUM
REC
RESET
ALT CHAR
BACK SPACE
DEL CHAR
INSRT
TAB MSGS
NEW DOC
RPRINT PAGE
CONT PRINT
TAB
GLOSS
DEL MEM
DEL LINE
DEL WORD
PRINT
STOP PRINT
READ
STORE
TRACE
ENTER
HOME
CODE
CODE



4. Screen/Numeric Keypad: This section of the board performs three (3) functions, depending on the specific requirements. The Screen Keys, which perform the function inscribed on the bottom right corner of the keycaps, are the standard values in effect until you call for the Numeric Keypad function. When using the Numeric Keypad, these keys represent the numeric values indicated on the top left corner of the keycaps, or the specific line drawing keys when in that mode of operation.

Screen Keys: The Screen keys are the standard values in effect. Each key is explained below:

- MSGS (Messages): Used only on the EXXON 8400 Series System to view any system generated messages.
- NEW DOC (New Document): Used only on the EXXON 8400 Series System to create a new document from a blank word processing screen.
- RPRNT PAGE (Reprint Page): Used only on the EXXON 8400 Series System to reprint a page that is currently being printed, or to reprint a page that has just been printed.
- CONT PRINT (Continue Printing): Used only on the EXXON 8400 Series System to restart the printer where it stopped (after a stop code, for example), or to start the printer (after inserting paper, for example).
- DEL MEM (Delete Memory): Clears the text that appears on the screen, as well as the text that has scrolled but has not yet been stored.
- DEL LINE (Delete Line): Deletes the line the cursor is positioned on, as well as the carriage return. The remaining text moves up to where the line was located.
- DEL WORD (Delete Word): Deletes the word the cursor is positioned on, including the space and any punctuation following the word. The cursor then moves to the first letter of the next word.
- PRINT: Prints the entire document that appears on the screen.
- STOP PRINT: Stops the printer and cancels the print command. (On the 8400 Series System, printing may be restarted where it stopped with the CONT PRNT, RPRNT PAGE, or RPRNT DOC keys.)
- READ: Recalls header/footer/footnote text for you to view, as well as edit. Also, recalls text during special operations such as Document Assembly and Records Processing.
- STORE: Used to store a document.
- TRACE: Allows you to see all formatting instructions on the screen.
- ENTER: Acts as an affirmation to initiate a command.

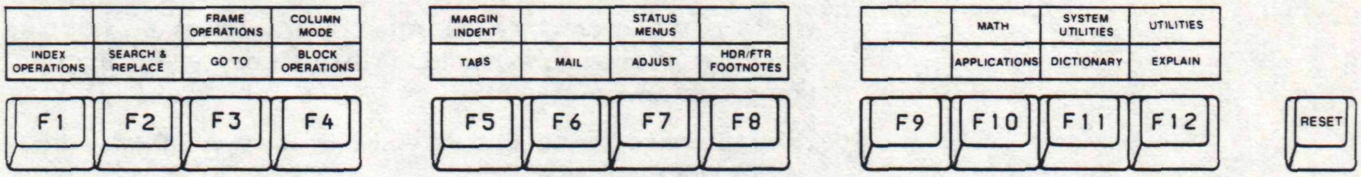
The MSGS key and the RPRNT PAGE key can be used in conjunction with the CODE key to perform the function inscribed on the front side of the key:

- ACK (CODE + MSGS): Used only on the EXXON 8400 Series System to let the system know that you have seen a message.

- RPRNT DOC (CODE + RPRNT PAGE): Used only on the EXXON 8400 Series System to reprint the current print job from the beginning.

Numeric Keypad: To use the Numeric Keypad, press the special NUMERIC key located above the MSGS key. When this Numeric Keypad is selected, all of the keys assume the numeric values or symbols inscribed on the top left corner of the keycaps. The numeric values will remain in effect until the NUMERIC key is pressed again.

5. Function Keys: There are 12 Function Keys located above the Modified Typewriter Keys. A special grid is located above these keys as part of the keyboard to help you identify their specific functions (See Appendix B of this manual for the functions available on the 500. See the EXXON 8400 Series User's Manual for the functions available on the 8400 Series.) The features along the bottom row can be used by pressing the Function Key directly. Those features on the upper line are entered by holding down the CODE key in conjunction with pressing the appropriate Function Key. Each key is multifunctional in nature and can be used for different tasks. Special prompts on the screen are used to indicate what role the keys play in the different functions. Also included in this section of the board are the NUM (Numeric) key, REC (Record) key, and the RESET key. The NUM key allows you to use the Numeric Keypad. The REC key is for future use. The RESET key is used to stop an operation if necessary.


FRAME OPERATIONS
COLUMN MODE
INDEX OPERATIONS
SEARCH & REPLACE
GO TO
BLOCK OPERATIONS
F1
F2
F3
F4
MARGIN INDENT
STATUS MENUS
TABS
MAIL
ADJUST
HDR/FTR FOOTNOTES
F5
F6
F7
F8
MATH
SYSTEM UTILITIES
UTILITIES
APPLICATIONS
DICTIONARY
EXPLAIN
F9
F10
F11
F12
RESET

Printer

A 35 cps bidirectional printer is attached to the unit to provide excellent quality printed documents. This printer is capable of printing in a variety of typestyles by using the interchangeable printwheels.

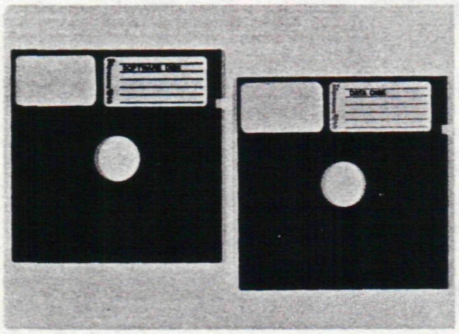
The 500 Series printer will print in the foreground or in the background, depending on which you select. With foreground printing, the text displayed on the screen can be printed immediately. Background printing will enable you to print a document stored on the disk while you continue working with other text on the display screen.

System Safeguards

The system will work properly if you use all of the components correctly and follow the system safeguards listed below:

1. Do not drop any paperclips, rubberbands, pens, jewelry, etc. into the printer.
2. Be sure the disk drives are kept free and clear of foreign objects. Do not insert anything other than a mini-disk into the drive.
3. Be sure the system and printer power is turned off when plugging the power cord into an electrical outlet.
4. Always keep liquids away from the system components to avoid spillage.
5. Do not use any type of cleaning fluids on the system. Wipe with a dry towel to remove any dust or dirt.
6. Be sure to attach component cables at their proper locations. Read the instructions first before attaching them.
7. Do not place papers, books, cups, etc., on top of or near the sides of your equipment.
8. Position your system components so that none of the vents on any of the components are blocked in order to allow for adequate airflow and avoid overheating.
9. Electrical systems require separate power supplies. Do not plug other electrical equipment into the outlet used for your information processor.
10. Do not service the equipment yourself. Always call a qualified service representative.
11. Leave the disk drives *open* when not in use.

Disks



The Exxon 500 Series Information Processor is a software based system. This means that in order for the system to function, it needs to have some sort of instructions to tell it what to do. These instructions are called programs or software and they are contained on a software disk. The advantage of a software-based system is that it is easy to upgrade. When new features are developed, a new software disk can be created with the additional instructions.

There are two types of disks that can be used on the 500 Series Information Processor:

1. Software Disk
2. Data Disk

Each of these disks will be explained in detail below.

Software Disk

The software disk contains all of the instructions and operations for the system. This disk is inserted into the left disk drive after the machine is turned on. Then, the instructions are read into the system so it can perform all of the information processing functions. This software disk remains in the drive until you have finished your work and are ready to turn the power off. Software disks should never be exchanged while operating the system.

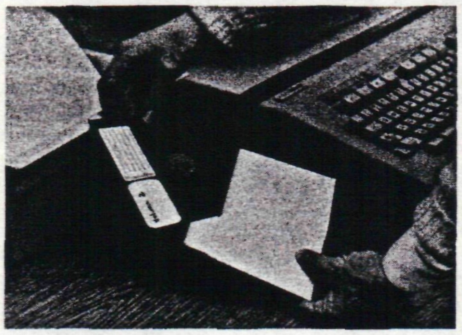
The software disk also gives you additional storage space. Documents can be stored directly on the software disk since it has additional space. On the Model 510, up to 250 additional pages of text can be stored on the software disk. On the Model 520, 60 additional pages can be stored. *All* of the text storage is done on the software disk when using the single disk-drive system.

Data Disk

A data disk is a specially formatted disk which is used to store *documents on a dual drive system. The dual-sided, dual density data* disk has the capacity to store up to 300 pages of text with approximately 2000 characters per page.

The data disk is specially prepared by the software disk and it contains an Index onto which document names are logged. The data disk is placed in the right disk drive (Dual Disk Models *ONLY*).

Disk Maintenance



Disks store a great deal of information so it is important that they be handled with special care. Below you will see a list of a few maintenance suggestions to help you keep your disks in good condition.

1. Keep disks away from any foods, liquids, and cigarette smoke.
2. Store the disks away from heat or sunlight. Keep the disks in an area that will not go over 50°C or 125°F.
3. Handle the disks with care. *DO NOT* touch the exposed magnetic surface of the disk.
4. Always keep the disk in its storage envelope when not in use.
5. *DO NOT* wipe or try to clean the magnetic surface of the disk.
6. Use only a felt-tip pen to write on the label of a disk. Sharp pressure from a ball point pen or pencils can destroy the surface.
7. Keep disks away from magnets and strong magnetic fields. They can destroy saved data.
8. *DO NOT* leave disks lying around. Store the disks in disk boxes or in disk file storage when not in use.
9. Remove the disks from the drives before turning the system off.
10. Insert disks in drives *after* turning the system on.
11. *DO NOT* bend or fold the disk.
12. *DO NOT* place heavy objects on the disk.
13. *DO NOT* attach rubber bands or paper clips to the disk.
14. Put ID labels in the proper place. Never use them in layers.

SECTION 2
OPERATING THE SYSTEM

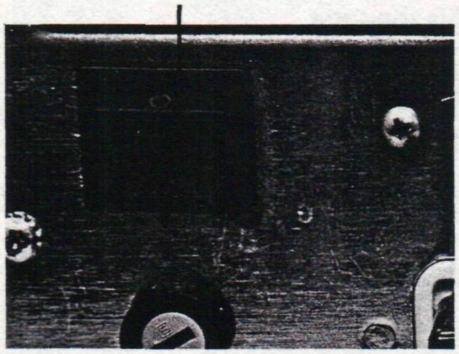
Getting Started/Stopped

When you are ready to begin working on your 500 Series Information Processor, there are several start-up procedures to follow. They are:

1. Power-on the System
2. Power-on the Printer
3. Load the Software
4. Adjust the Screen Controls
5. Insert the Data Disk (Dual Disk Models ONLY)

Powering On the System

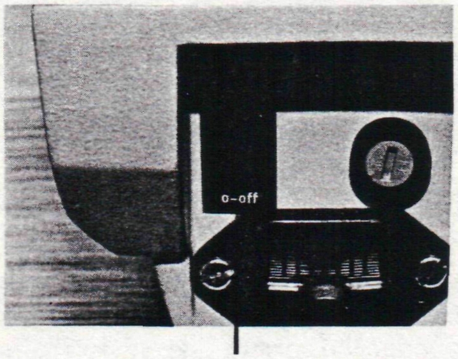
System ON/OFF switch



The ON/OFF switch for the system is located at the right rear corner on the back of the CPU.

To turn the system power on, firmly press the top of the switch down. The small red lights on the disk drives will flash to indicate the power is on.

Powering On the Printer



Printer ON/OFF switch

After the system power is on, the printer power must also be turned on. The printer ON/OFF switch is located on the back of the printer on the bottom right-hand side.

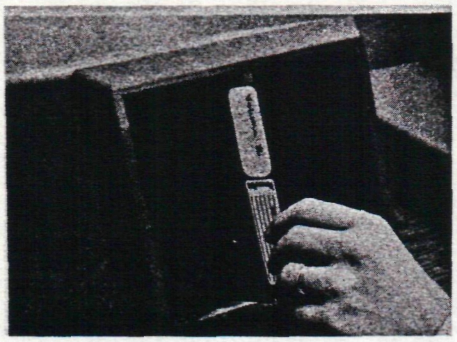
To turn the printer power on, firmly press the top of the ON/OFF switch down.

Loading the Software

When the system and the printer have been turned on, the software must be loaded so the system can perform all of the information processing features.

To Load the Software

Instructions:



1. Open the left disk drive door by pressing the left edge of the square door firmly.
2. Insert the disk *sideways* with the cut-out notch on the bottom and the labels on the disk facing towards the left.
3. Once the disk has been inserted fully into the drive, close the disk drive door by pressing it slowly. If any resistance is felt when closing the door, the disk should be reseated and the door slowly closed again. *NEVER* force the door closed.

   The system will immediately begin to read the information on the software disk and special coded system information will appear on the screen.

   When the system has completed reading the software, a prompt will appear for you to enter the time.
4. Entering the Time:
   a. Enter the time by typing the time of day in hour and minutes. Type the hour, then a slash, then the minutes (i.e. 9/45).

      Note: Corrections can be made by pressing the BACKSPACE Key and retyping the information.

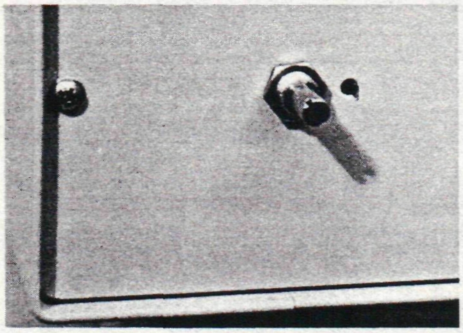
   b. Type AM or PM accordingly.
   c. Press ENTER to move to the next prompt.
5. Entering the Date:
   a. Enter the current date by typing the month followed by the day, then the year. Type six digits separated by a dash.
   b. Press ENTER to complete the loading process. The screen will clear and be prepared for text entry.

After the time and date have been entered, the status and format lines will appear on the screen. The cursor will be located at the upper left-hand corner, directly under the format line.

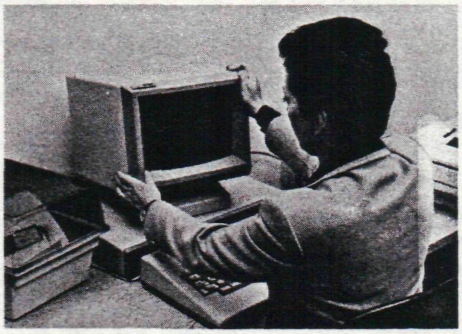
Adjustment of Screen Controls

The screen can be adjusted 3 ways for your comfort and convenience. The two screen controls include:

1. Contrast Control
2. Tilt Mechanism and Rotation



Contrast Control: The contrast control is used to adjust the contrast and brightness of the display screen. A small knob is located on the back of the display unit on the right-hand side. When turned clockwise, this knob brightens the characters on the screen. When it is turned counterclockwise, the screen becomes dim.



Tilt Mechanism and Rotation: The tilt mechanism adjusts the angle at which the screen is positioned. The screen will also swivel at the base to be positioned rotationally in the direction you need. This mechanism, located at the base of the screen, can be easily adjusted by:

1. Positioning hands on both sides of the display unit.
2. Pushing either upwards, downwards, or turning rotationally, depending on the desired position.

Inserting the Data Disk (Dual Disk Drive Models ONLY)

On the dual disk drive model systems, the data disk will be loaded into the right disk drive (Disk Drive b) so that documents can be recorded and stored on this disk. This data disk *must* have been previously prepared and formatted before it can be used. This procedure is explained in Section 8.

To Insert the Data Disk

Instructions:

1. Open the right disk drive by pressing the square door.
2. Insert the disk sideways with the cut-out notch at the bottom and the labels on the disk facing towards the left. Make sure the disk is pressed all the way into the drive and it is seated well.
3. Close the disk drive door by firmly pressing it slowly. If any resistance is felt when closing the door, the disk should be reseated and the door slowly closed gain. *NEVER* force the door closed.

After you have completed all of the start-up procedures, you are ready to begin using your Information Processor for all of your text entry, editing and processing needs.

Turning the System Off

When you have completed all of your text processing work and want to turn the system off, there are several steps you should follow.

To Turn the System Off

Instructions:

1. Remove all disks from the drives.
2. Turn the system power off by pressing the ON/OFF switch on the back of the CPU.
3. Turn the printer power off by pressing the ON/OFF switch on the back of the printer.

System Messages and Helps

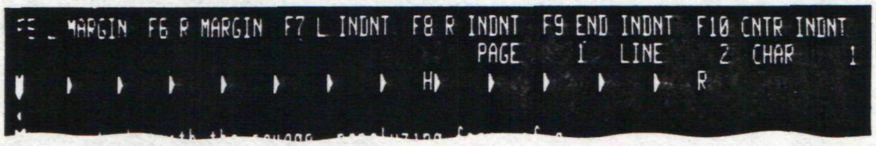
System Communication to the Operator

To help you in the operation of the 500 Series, the system communicates to you by displaying three (3) different kinds of messages on the screen. They include:

1. Operator Prompt
2. Status Message
3. Error Message

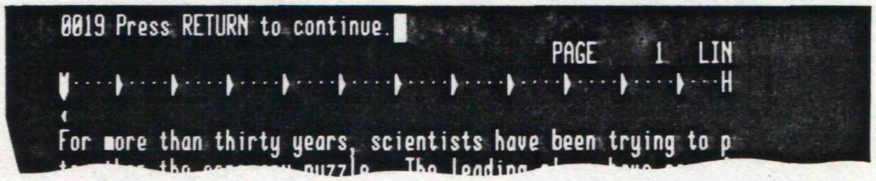
Operator Prompt: A prompt is an instructional message that appears on the first line of the screen. This prompt is there to guide you after you have selected a specific function or to instruct you to perform a specific operation. It instructs you on what each function key represents and what it will do when depressed. The "F" followed by a number indicates the specific function key to press, then the information following it tells what the key will perform. F12:MORE indicates that there are additional useful keys for this function. This key acts as a toggle to additional function prompt lines.

The operator prompts can also instruct you to perform a specific step to complete an operation.



```
F5 L MARGIN  F6 R MARGIN  F7 L INDNT  F8 R INDNT  F9 END INDNT  F10 CNTR INDNT
                                          PAGE       1  LINE       2  CHAR      1
```

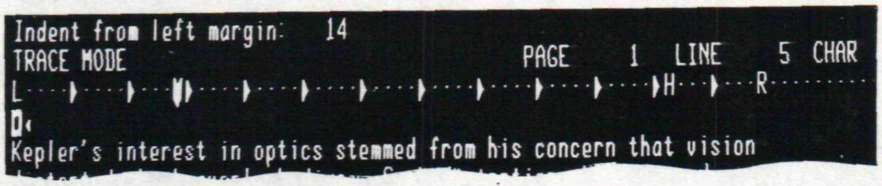
Error Messages: Error messages are indications that there is a problem with either the command that was given or with a particular system component or function. The error is indicated two ways. The first way is through a message in the Status Area. In this case, the error is usually a procedural one and the message tells you where the problem is so you can take the necessary steps for correction. The second type of error message appears as a number in either the upper or lower corners of the screen. This number indicates a specific problem, usually with a system component or a disk. You must look up the number in a table (located in Appendix A) to determine what the problem is. Do what is required to continue.



```
0019 Press RETURN to continue.
                                          PAGE    1  LIN

For more than thirty years, scientists have been trying to p
```

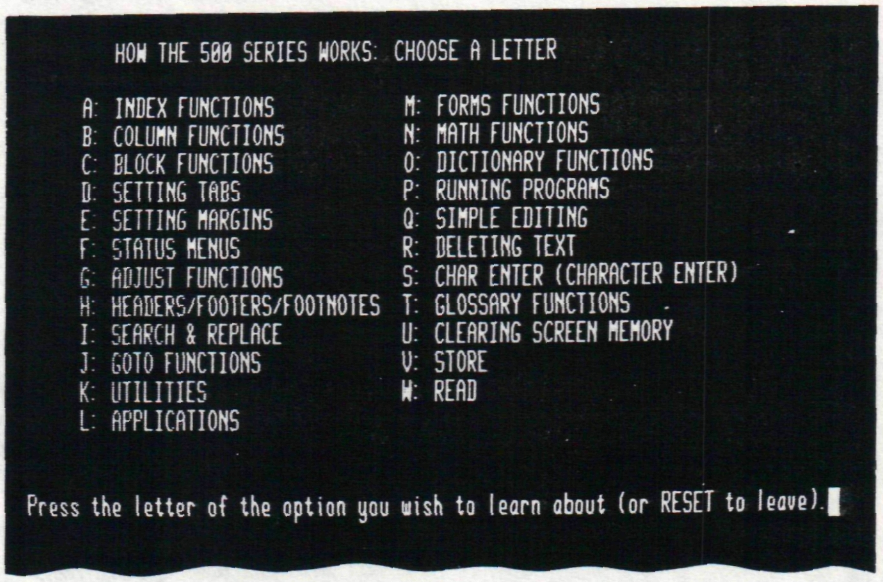
Status Message: Status messages appear on the screen in the upper left-hand corner, directly above the format line. These status messages appear at times to indicate what the system is doing or to give you additional information as to format or procedure.



```
Indent from left margin:    14
TRACE MODE                                   PAGE    1  LINE    5  CHAR
L····▸····▸···▼▸····▸····▸····▸····▸····▸····▸····▸····▸H···▸···R·········
█◂
Kepler's interest in optics stemmed from his concern that vision
```

Explain Function

The explain function is a special aid for the operator. It is actually a mini-reference library which can be accessed during operation to give information and details on all of the system features and operations.



```
        HOW THE 500 SERIES WORKS: CHOOSE A LETTER

     A: INDEX FUNCTIONS               M: FORMS FUNCTIONS
     B: COLUMN FUNCTIONS              N: MATH FUNCTIONS
     C: BLOCK FUNCTIONS               O: DICTIONARY FUNCTIONS
     D: SETTING TABS                  P: RUNNING PROGRAMS
     E: SETTING MARGINS               Q: SIMPLE EDITING
     F: STATUS MENUS                  R: DELETING TEXT
     G: ADJUST FUNCTIONS              S: CHAR ENTER (CHARACTER ENTER)
     H: HEADERS/FOOTERS/FOOTNOTES     T: GLOSSARY FUNCTIONS
     I: SEARCH & REPLACE              U: CLEARING SCREEN MEMORY
     J: GOTO FUNCTIONS                V: STORE
     K: UTILITIES                     W: READ
     L: APPLICATIONS


 Press the letter of the option you wish to learn about (or RESET to leave).█
```

To Access the Explain Function at Anytime During Operation

Instructions:

1. Press RESET to make sure that no other function is activated.
2. Press the F12 Key.
3. A list of functions will appear on the screen.
4. At the bottom of the display, a prompt will appear for you to select the particular feature you would like explained. Enter the corresponding letter for the selection you want.
5. Press ENTER.
6. Press RESET to clear the screen and resume your work at the point where you left off.

System Workflow

A certain workflow pattern develops when using the 500 Series to complete your work.

1. TYPE: Type a draft copy of the text, making any necessary corrections as you go along.
2. STORE: Store the text on the disk for future use.
3. READ/REVISE: Read the text to the screen to make all editing revisions and corrections.
4. PRINT: Print out a final copy of the document.

SECTION 3

TYPING & STORAGE OF TEXT

Typing a New Document

The Modified Typewriter Keys act exactly as they do on a standard typewriter; however, rather than the text being typed on a sheet of paper, it is displayed on the screen. Now you see typographical errors as you type and can correct them immediately before the text is printed. The BACKSPACE key can be used to immediately correct errors. Other editing features that are available are explained in Section 4.

It is recommended that you enter a RETURN on the first line and begin typing on line number 2. This will speed your text entry and aid in formatting because all of the initial system codes for your document are stored on line 1 and may slow the cursor.

Word Wraparound

One of the 500's input features is word wraparound. Word wrap enables you to enter text at a high speed without having to make any end-of-line decisions. The system will enter a return automatically and wrap any word that passes the right margin to the beginning of the next line. Standard margins and tab settings are automatically set by the system. These format settings, however, can be changed at any time by following the specific instructions in Section 5.

To create blank lines or short lines, simply press the RETURN key after each line. Every time you press RETURN, a left-pointing triangle (◂) appears on the screen to indicate the location of the return.

Text Entry Features

When you are entering text, there are several text entry features for you to use.

Several of the basic text entry features include:

- Automatic Centering
- Underlining
- Subscripts & Superscripts
- Required Space

Centering

Centering of text becomes an easy task on the 500 Series. Any amount of text on a line can be centered automatically without calculation or self-adjustment between the left and right margin settings. This centered text will remain centered even if margins are changed and text is adjusted. There is never any need to re-center it.

To Center Text on Input

Instructions:

1. Press CODE + c and the cursor will move to the center of the line.
2. Type the text to be centered.
3. Press RETURN to move to the next line.

To Center Text Previously Typed

This may be used to re-center a line which was previously typed and edited and needs to be centered again.

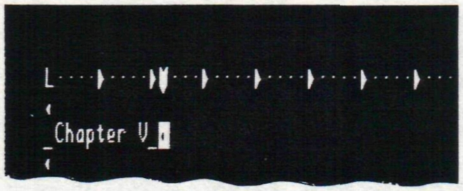
Instructions:

1. Move the cursor to the text to be centered.
2. Press CODE + c. The text centers automatically between the margins.
3. Press RETURN to move to the next line.

Underscoring

Single Underscore: In some cases, you may want to underscore special text for emphasis. To underscore a word or a specified amount of text, you must enter an underscore code at the beginning and the end of the text to be underscored.

Once you have entered the underscore codes, a special underscore symbol (_) will appear on the screen to indicate the text to be underscored. This symbol, however, does not represent a space. The underscore codes will be counted during wordwrap but will not be counted during margin adjustment. When you print the text, all underscoring will be included in the printed text.



```
_Chapter V_
```

To Single Underscore Text

Instructions:

1. Directly before the text to be underscored, enter an underscore code by pressing CODE + u. An underscore symbol (_) will appear on the screen.
2. Type the text to be underscored.
3. Press CODE + u again to end the underscore command. Another underscore symbol will appear on the screen.

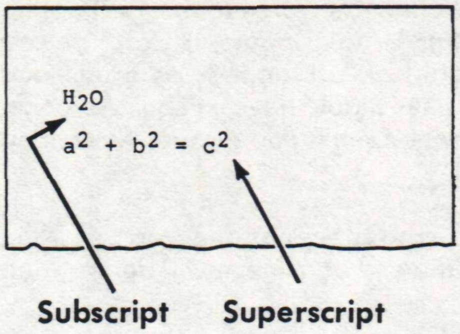
Double Underscore: Text also can be double underscored for statistical charts or other applications. This is done by making a status menu selection, then using a special code on text entry. Special symbols will surround the text on the screen, then the double underscoring will appear when the text is printed out.

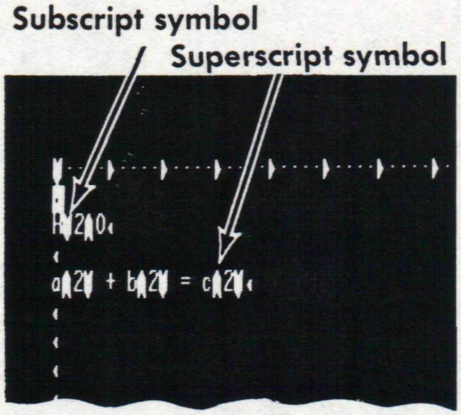
To Double Underscore Text

Instructions:

1. Press CODE + F7 (Status Menus).
2. Press F7 (Document Status Menus) again.
3. Be sure you are in the Variable Line Format Menu (CODE + ↓), then move the cursor to the overstrike character selection.
4. Type a backslash (/).
5. Press ENTER.
6. Directly before the text to be underscored, press CODE + O. The symbol (θ) will appear on the screen. This symbol will *not* represent a space.
7. Type the text to be double underscored.
8. Press CODE + O again to end the double underscore command. Another symbol will appear on the screen.
9. When printing the text, enter either 0126 or 0132 for the printwheel selection in the Printer Status Menu and change the printwheel accordingly. The text will be double underscored upon printout.

Subscripts/Superscripts





Subscripts or superscripts may be required in some of your text for mathematical equations, references or other special cases. A superscript raises a character above the regular text line, while a subscript lowers text below the text line. Text can be raised or lowered either ½ or ¼ line spacing depending on your offset selection in the Variable Line Formats Document Status Menu. The default selection is 1/4 line spacing.

Subscripts and superscripts can be entered by using a special code which tells the system to raise or lower the text. Special symbols will appear on the screen to indicate your selection, then the text will be super or subscripted during printing. Super and subscripts will be counted during word wraparound but will not be counted during margin adjustment.

To Change Offset Selection

Instructions:

1. On the line before the text to be super or subscripted, access the Variable Line Format Menu by pressing CODE + F7, then press F7 again.
2. Move the cursor to the Super/Sub Offset Selection.
3. Enter a 2 (1/2 line spacing) or a 4 (1/4 line spacing) for the offset you desire.
4. Press ENTER to enter the selection.
5. Press RETURN to return to the document.

To Superscript Text

Instructions:

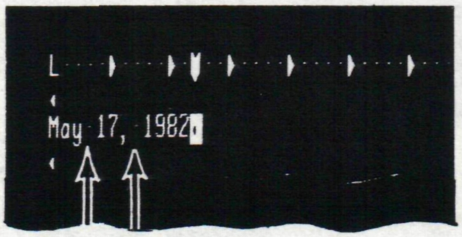
1. Directly before the text to be superscripted, press CODE + E. The symbol (▲) will appear on the screen to indicate the superscript code.
2. Type the text to be positioned above the normal line spacing.
3. Type CODE + d to return the text to normal line spacing.

To Subscript Text

Instructions:

1. Type CODE + D to indicate a subscript. A special symbol (▼) will appear on the screen to indicate this command.
2. Type the character(s) to be subscripted.
3. Press CODE + e to enter another command to bring the text back to the normal level.

Required Space



May·17,·1982

A required space is a space that connects words so they will not be separated during text adjustment. A long name, a date, or any important word group that should always appear as a unit and should not be split between two lines should have a required space. The required space is also used when setting up a form. This coded space sets the field locations.

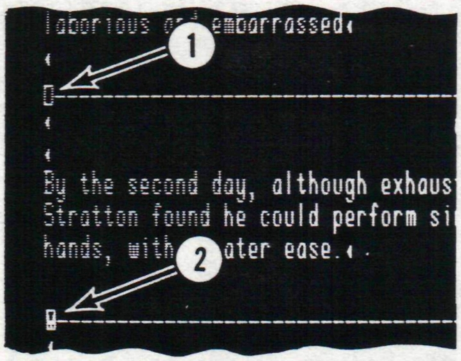
The system treats words with required spaces as one word, so if the entire word group will not fit at the end of a line, it will be dropped down to the next line.

To Type a Required Space

Instructions:

1. Type the first word or group of characters.
2. Press CODE + SPACEBAR. A coded space symbol (•) will appear on the screen.
3. Type the next word to be connected.
4. Repeat steps 2 and 3 until all the words you want connected are typed.

Entering Manual Page Breaks



```
laborious a  d embarrassed.

By the second day, although exhaus
Stratton found he could perform si
hands, with    ater ease.
```

When you are typing text you may paginate the entire document (Section 5) or enter manual page breaks where the page should end. There are two kinds of manual page breaks you can enter:

1. Temporary Page Break
2. Required Page Break

Temporary Page Break

Temporary page breaks can be entered if you want to manually determine where you want the pages to end when you are typing a document. A temporary page break can be manually entered in a document by pressing CODE + t (temporary). When this is pressed, a page break code will be entered into the document (▮━). This page break is temporary in that its location can be moved when you perform pagination (see Section 5). A temporary page break is also used in creating records during records processing.

Required Page Break

A required page break can be entered to end a page of text. This will *not* be deleted during pagination so it actually protects text that should start at the beginning of a new page. To enter a required page break, press CODE + r (required). A required page break symbol will appear on the screen.

Document Status Menus

Each document that you create has two (2) lists of specific document information that are stored along with it called DOCUMENT STATUS MENUS. These menus are used to select formatting and special document information. The two menus include:

1. First Line Formats Menu
2. Variable Line Formats Menu

The First Line Formats Menu contains selections that can only be changed at the beginning of a document on the first line. These selections include items that deal with pagination and document status which identify and format the entire document.

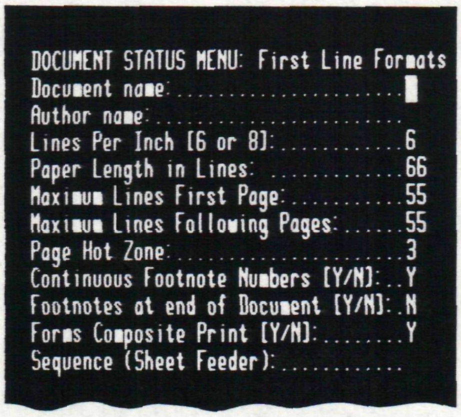
The Variable Line Formats Menu contains selections that can be changed at any time throughout a document. These items determine various formats for different sections of text.

Both of these menus are accessed through the Status Menu function. On the first line of a document, both menus can be displayed. However, after the cursor has been moved past the first line, only the Variable Line Formats Menu will appear on the screen when you select the Document Status Menus.

Each menu question has a preset answer which is called a default value. This setting is automatically set by the system and will remain in effect until you make a change to it. These menu selections can be changed and stored with each individual document to set specific format requirements.

A description of each of the Document Status Menus and their selections is listed for your information.

First Line Formats Menu



```
DOCUMENT STATUS MENU: First Line Formats
Document name:.......................█
Author name:.........................
Lines Per Inch [6 or 8]:.............6
Paper Length in Lines: ..............66
Maximum Lines First Page:............55
Maximum Lines Following Pages:.......55
Page Hot Zone:.......................3
Continuous Footnote Numbers [Y/N]:..Y
Footnotes at end of Document [Y/N]:.N
Forms Composite Print [Y/N]:.........Y
Sequence (Sheet Feeder):.............
```

Document Name: The document name is automatically entered in the menu by the system when you store a document. This selection is used to change the name of an existing document.

Author Name: This is available for you to enter up to 3 initials to identify the author of the document. This is an optional selection. If you do not fill this in, no initials will appear in the Index.

Lines per Inch [6 or 8]: This indicates how many lines of text will be included within 1 inch of vertical space. The default value is 6 lines with an option to select 8 lines per inch.

Paper Length in Lines: This indicates the size of the paper you will be using for printing. The preset value is 66 (6 lines x 11 inches) which would specify a standard size (8½" x 11") sheet of paper. This selection must match the size of paper you will be using in the printer.

Maximum Lines First Page: A selection can be made to indicate how many text lines you want printed on the first page of text. The preset value is 55. This value is used to determine the placement of page breaks during pagination.

Maximum Lines Following Pages: This is an indication of how many text lines are to be printed on all pages following the first page. The default value is 55 lines. This value is used to determine the placement of page breaks during pagination.

Page Hot Zone: The page hot zone is the smallest amount of lines that the system will allow for a paragraph division during pagination. The paragraph will be divided so the number of lines on each page is at least the number selected here. The preset value is 3 and the smallest available selection is 1.

Continuous Footnote Numbering [Y/N]: Selection as to whether you want footnotes numbered consecutively throughout the entire document (answer "Y") or if you want numbering of the footnotes to begin with number 1 on each page (answer "N"). The default value is "Y."

Footnotes at end of Document [Y/N]: The option is available to have all of the footnotes print together at the end of a document (answer "Y"). Otherwise, when "N" is answered, footnotes will appear on the bottom of every page. The default value is "N."

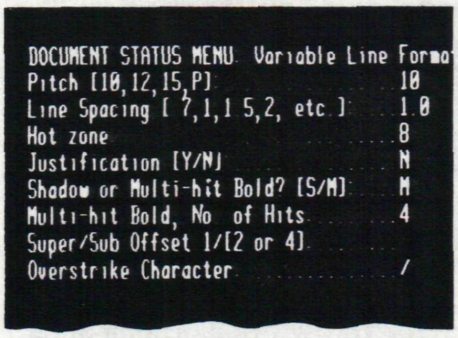
Forms Composite Print [Y/N]: If you are printing a form, you can select whether you want the entire form and entries to be printed (answer "Y") or if you just want the entries to print onto a pre-printed form (answer "N"). The default value is "Y."

Sequence (Sheet Feeder): If you have a sheet feeder (optional), the sequence of paper fed from the different trays must be specified. Whether the sheet is coming from the upper or lower tray is indicated by this selection.

A: Upper Tray
B: Lower Tray

These letters can be used in combination to indicate alternating sequence (AB—selection from upper, then lower tray). The letters can also be indicated with a colon, to indicate first sheet selection and selection of remaining sheets (A:B—first sheet from upper tray, remaining from lower tray). The default value is "A" which means sheets would automatically be fed from the upper tray.

Variable Line Formats Menu



```
DOCUMENT STATUS MENU: Variable Line Forma
Pitch [10,12,15,P]:......................10
Line Spacing [.7,1,1.5,2, etc.]:.........1.0
Hot zone:................................8
Justification [Y/N]:.....................N
Shadow or Multi-hit Bold? [S/M]:.........M
Multi-hit Bold, No. of Hits:.............4
Super/Sub Offset 1/[2 or 4]:.............
Overstrike Character:....................
```

Pitch [10, 12, 15, P]: The selection for the pitch of the document is made here. The default value is 10 pitch, which prints 10 characters per inch. The other pitches available are:

12 - 12 pitch (12 characters per inch)
15 - 15 pitch (15 characters per inch)
P - Proportional spacing

Important: To change the pitch setting, be sure to open this menu with the cursor on line 1.

Line Spacing [.7, 1, 1.5, 2, etc.]: The line spacing indicates the amount of text line space between lines on printout. The available selections include:

.7 - 7/10 of a line spacing
1.0 - Single-spacing (default value)
1.5 - Space and 1/2
2.0 - Double-spacing, etc.

Hot Zone: The hot zone indicates the area before the right margin where word wrap and hyphenation decisions are made. The default value is 8 characters. As the system adjusts, it will look for the first space that falls within this zone and brings the following word down to the next line. The smallest hot zone value is 3.

Justification [Y/N]: Text with a right margin as straight as the left is called justified. The default value is N (NO).

Shadow or Multi-Hit Bold [S or M]: Shadow print is a type of enhanced print in which the character is printed twice, the second time slightly offset. Multi-Hit Bold calls for the character to be overstruck several times creating darkened print. The default is M for Multi-Hit.

Multi-Hit Bold, Number of Hits: If you select Multi-Hit Bold, you can indicate the number of times you want bold character to be overstruck. The default value is 4.

Super/Sub Offset 1/[2 or 4]: This setting indicates the line spacing for super or subscript. The choices are ¼ and ½ line spacing with the default value at ¼. Selections are made by entering a 2 or a 4.

Overstrike Character: A selection can be made as to the character to be used to overstrike a group of text. The slash (/) is the preset default value, but any character specified can be used.

To Access the Document Status Menus

Instructions:

1. While in the document, press CODE + F7.
2. A prompt will appear on the screen. Press F7 once again to select the Document Status Menus.
3. A Document Status Menu will appear on the screen for you to view or make changes.

   REMEMBER, if you are on line 1, the First Line Formats Menu will appear and you can scroll to the other menu. If you are on any other line, the Variable Line Formats Menu will display *ONLY.*
4. Press RETURN *to return to your document.*

To Scroll Between Document Status Menus (on Line 1 only)

Instructions:

1. CODE + ↓ (Cursor Down) - Moves from First Line Formats Menu to Variable Line Formats Menu.
2. CODE + ↑ (Cursor Up) - Moves back to First Line Formats Menu from Variable Line Formats Menu.

To Change a Document Status Menu Selection

Instructions:

1. After selecting the Document Status Menu, use the CURSOR DOWN key to move to the selection you wish to make.
2. Type your new entry.

   Note: If you make an error in typing, press BACKSPACE to clear the error, then correctly re-type the selection.
3. Press ENTER to record your answer in the menu.

   Note: The system will go back to the original entry if you enter an unacceptable answer.

Storing New Documents

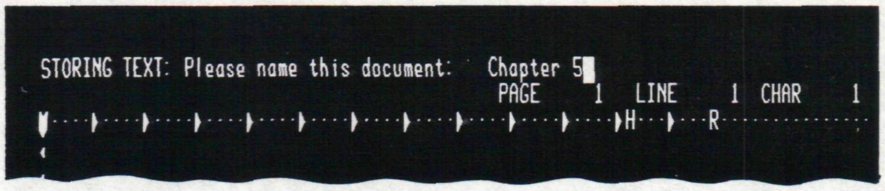
After you have typed new text, you will want to store it so you can easily access and update it in the future. Storage occurs in 2 ways—through special prompts and by using the STORE Key. Each disk contains an Index which is where the name of the document is displayed once it has been stored.

Use of the STORE Key

The STORE Key, located at the bottom of the Screen Keypad, is used to record your document after typing new text or editing existing text. The STORE Key should be pressed at the end of any document you want recorded or updated. When this key is pressed, the document will be stored on the disk in the drive where you last accessed the Index (Dual Drive Models).

In some cases, the automatic storage prompts will appear when you are working with your text because the screen memory is filled. This screen memory is called the buffer and it can contain up to 6,000 characters. In this case, the system will begin to store the text, when the prompt appears, then you just press STORE when you are finished with the entire document to record any amount of text that remains in the screen memory.

Storage Prompt



```
STORING TEXT: Please name this document:   Chapter 5
                                            PAGE     1   LINE     1  CHAR     1
```

This prompt appears when you press STORE on a newly created small document which was not 6000 characters, or when you reach the buffer limit on a new lengthy document. When you press STORE, the document will be stored on the disk in the drive where you last accessed the Index (Dual Drive Models).

To Name a Document

Instructions:

1. When the prompt appears, type the document name (up to 34 characters). The name can contain any upper or lower case characters except the asterisk (*) or the colon (:).
2. Press ENTER.
3. Continue with your present document or read or begin a new document.

Storing New Text on a Different Disk Index (Dual Disk Drive Models ONLY)

In some cases, you may want to store a document on the disk in the other disk drive. This can be done by indicating the drive letter with your document name. If the drive letter is not indicated, the document will be automatically stored on the disk in the drive where you last accessed the Index.

To Store Text on a Disk in Another Drive

Instructions:

1. Press STORE if storage message has not yet been displayed.
2. A prompt will appear to name the document.
3. Type the letter of the drive where you want the document stored. The letter can be typed in either upper or lowercase.

   a: left disk drive
   b: right disk drive

4. Type a colon.
5. Type the document name (up to 32 characters.)

   EXAMPLE: b: Memo 1

6. Press ENTER and the document will be stored on the specified Index in the drive you indicated.

Storing and Accessing Existing Documents

The Index

After you have created a document, it will be stored on the disk for editing and printout. When the document is recorded, it is given a name which is automatically logged on the Disk Index. The Disk Index is a listing of all of the documents stored on the disk. It provides specific data about each document as well as some overall disk information.

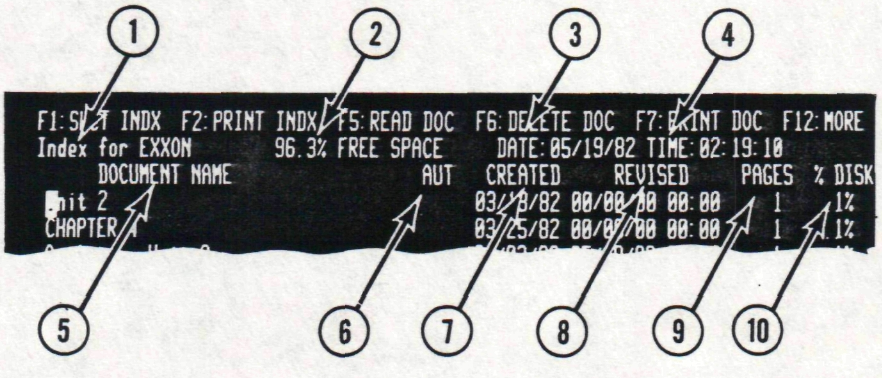
To access the Index

Instructions:

1. Press F1 and the Index will appear on the screen.

The Index contains the following information:

1. **Name of Data Disk**- Identifies the name of the disk.
2. **Disk Space**- Lists the amount of free storage space that remains available on the disk.
3. **Date**- The current date that is entered when loading the software is shown in the Index.
4. **Time**- The time of day in hours, minutes and seconds. This functions as an active clock as long as the machine is powered on.
5. **Document Name**- Name of document which is recorded on the disk.
6. **Aut (Author)**- Initials of the author of the document. This information is entered as a part of the Document Status Menu.
7. **Created**- Date a document is created.
8. **Revised**- Date and time a document is revised.
9. **Pages**- Number of pages contained within the document.
10. **% of Disk**- Percentage of disk space used by the document.

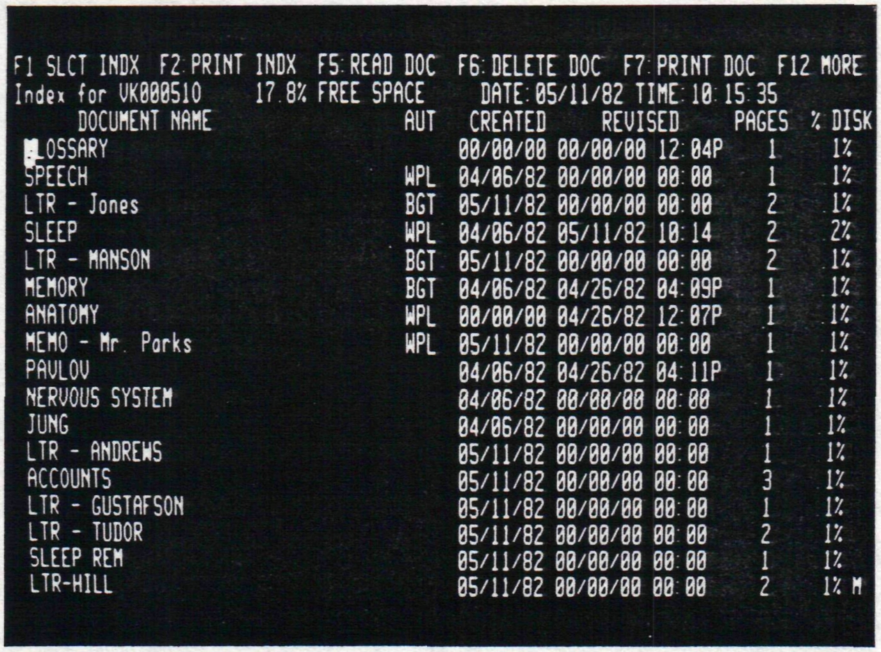


```
F1:SLCT INDX  F2:PRINT INDX  F5:READ DOC  F6:DELETE DOC  F7:PRINT DOC  F12:MORE
Index for EXXON          96.3% FREE SPACE     DATE:05/19/82 TIME:02:19:10
       DOCUMENT NAME                     AUT  CREATED    REVISED         PAGES  % DISK
 Unit 2                                       03/18/82 00/00/00 00:00      1      1%
 CHAPTER                                      03/25/82 00/00/00 00:00      1      1%
```

Scrolling Through the Index

The mini-disk Index has the capacity to hold a large number of document names. In many cases, the Index may be more than one page in length. Each page of the Index can contain 17 document names and additional names will be continued on the next page. The document names can be accessed on the first page by using the Cursor Direction Keys, then the following index pages will be accessed using a special combination of keystrokes. When there are additional pages in the Index, a special designator appears on the Index to let you know. This designator is the letter "M" which appears at the end of the line for the last document on that page.

When you have a multiple page Index, it will be necessary at times to scroll through the individual pages.



```
F1 SLCT INDX  F2:PRINT INDX  F5:READ DOC  F6:DELETE DOC  F7:PRINT DOC  F12 MORE
Index for VK000510     17.8% FREE SPACE     DATE:05/11/82 TIME:10:15:35
      DOCUMENT NAME                    AUT  CREATED   REVISED        PAGES  % DISK
 GLOSSARY                                   00/00/00 00/00/00 12:04P   1     1%
 SPEECH                                WPL  04/06/82 00/00/00 00:00    1     1%
 LTR - Jones                           BGT  05/11/82 00/00/00 00:00    2     1%
 SLEEP                                 WPL  04/06/82 05/11/82 10:14    2     2%
 LTR - MANSON                          BGT  05/11/82 00/00/00 00:00    2     1%
 MEMORY                                BGT  04/06/82 04/26/82 04:09P   1     1%
 ANATOMY                               WPL  00/00/00 04/26/82 12:07P   1     1%
 MEMO - Mr. Parks                      WPL  05/11/82 00/00/00 00:00    1     1%
 PAVLOV                                     04/06/82 04/26/82 04:11P   1     1%
 NERVOUS SYSTEM                             04/06/82 00/00/00 00:00    1     1%
 JUNG                                       04/06/82 00/00/00 00:00    1     1%
 LTR - ANDREWS                              05/11/82 00/00/00 00:00    1     1%
 ACCOUNTS                                   05/11/82 00/00/00 00:00    3     1%
 LTR - GUSTAFSON                            05/11/82 00/00/00 00:00    1     1%
 LTR - TUDOR                                05/11/82 00/00/00 00:00    2     1%
 SLEEP REM                                  05/11/82 00/00/00 00:00    1     1%
 LTR-HILL                                   05/11/82 00/00/00 00:00    2     1% M
```

To Go to the NEXT Page of the Index

Instructions:

1. Press CODE + ↓ (Cursor Down Key)

To Go to the PREVIOUS Page of the Index

Instructions:

1. Press CODE + ↑ (Cursor Up Key)

Accessing the Index on a Different Disk (Dual Disk Models ONLY)

Both the software disk and the data disk have an Index. Since these disks will be in separate drives, the specific Index that you want to view must be accessed. Once you access a specific Index, this Index will remain in effect until you access the other one.

To Access the Index on Another Disk Drive

Instructions:

1. Press F1 (Index Operations). The currently selected Index will appear on the screen.
2. Press F1 again to select the Index.
3. A prompt will appear on the screen asking what disk drive you want.
4. Type the letter of the disk drive where the Index is located and press ENTER.

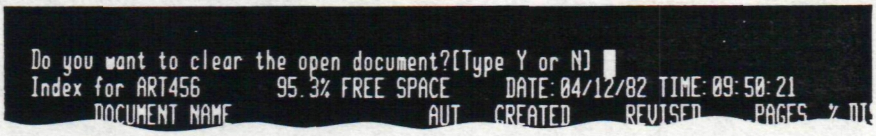
   a: left disk drive
   b: right disk drive

   The new Index will appear on the screen and remain in effect until a further selection is made.

   Note: If there is no disk in the drive you have selected, a prompt will appear to indicate that the Index cannot be accessed. Press RETURN to continue. The previous prompt will display again, allowing you to re-enter the drive selection.•

Reading a Document to the Screen

After you have stored a document, it is very easy to read this text to the screen once again to make editing changes or just view the text. The primary method of reading documents to the screen is through the Index functions. If another document is already on the screen, a special prompt will appear.



```
Do you want to clear the open document?[Type Y or N] █
Index for ART456       95.3% FREE SPACE     DATE:04/12/82 TIME:09:50:21
        DOCUMENT NAME                   AUT   CREATED      REVISED      PAGES  % DI
```

This prompt is to remind you to store your text on the screen before reading the other document.

If you answer "Y" (Yes) to Clear

Instructions:

1. The existing document will be cleared and the new document will be read to the screen.

If you answer "N" (No)

Instructions:

1. The existing document will return to the screen.
2. Press STORE to either update or create a "new" document.

To Read a Document to the Screen

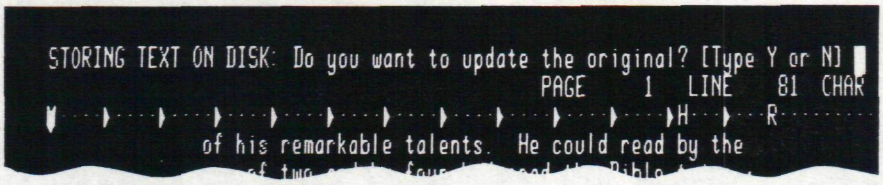
Instructions:

1. Press F1 (Index Operation) to recall the Disk Index to the screen.
2. Using the Cursor Direction Keys, move the cursor either up or down to the name of the document you wish to read. (REMEMBER: On a multiple page index, use CODE + ↓ and CODE + ↑ to move to the different pages of the Index.)
3. Press F5 for READ DOC (read document).

   Note: If you have been working on another document when you try to read a document, a message will appear to store or clear the document that was on the screen. Answer accordingly.
4. The document you have selected will appear on the screen.

Updating a Document

After reading a document to the screen, the text can be viewed or edited. Then, there are two options for restoring the text. First, the text can be restored as a new document. The document can also be updated by overstoring the new text on top of the original document.



```
STORING TEXT ON DISK: Do you want to update the original? [Type Y or N] █
                                                  PAGE    1  LINE   81  CHAR
▼···▶····▶····▶····▶····▶····▶····▶····▶····▶····▶····▶H··▶···R·········
               of his remarkable talents.  He could read by the
```

This prompt appears on the screen if you press STORE for an existing document or after moving through the buffer limit of a lengthy document you are reading.

If you answer "Y" (Yes)

Instructions:

1. The newly edited document will overstore the original document previously recorded in the Index.

If you answer "N" (No)

Instructions:

The system will allow the original document to remain the same without changes and create a brand new document using the same information.

1. The prompt will appear asking you to enter the document name. Type a document name (up to 34 characters in either upper or lowercase except the asterisk (*) or the colon (:).

   Note: If you want to store the document on another drive, refer to pages **3**/3 - **3**/13.

2. Press ENTER.
3. Continue with your document or read or begin a new document.

SORT INDEX

Due to the large number of documents a disk can index, a Sort Index function is provided to sort the Index of a hard disk or floppy disk alphabetically by document name.

The 500 Series system will sort the index starting with A, then a, and continue through z. It will then sort by digits, and end with miscellaneous characters such as &, ? or $.

Once an Index on a disk is sorted, it will remain sorted permanently. Each time a new document is stored, an old document is deleted or a document is renamed, the index will be alphabetized automatically. Therefore, you must sort the Index of a disk only once.

To Sort the Index of a Disk Alphbetically:

1. Press F1 to display the Index that you want sorted.
2. Press F3 (Sort Index). A prompt will appear that asks you to enter the letter of the drive.
3. Type the letter of the disk drive containing the disk to be sorted.
4. ENTER
5. The Index will now be sorted alphabetically.

If you receive a message that says DISK FULL - or - NAME ALREADY EXISTS, it means that you cannot sort the Index of a disk that is full. One of the two conditions exists; either will prevent the operation. If either message appears, you have two choices:

- Copy a few of the documents onto another disk.
- Delete a few of the documents.

Document Select

The Document Select feature enables you to find a specific document in the Index of a disk quickly. Enter a document name; the Index will be displayed starting with the document that was entered. (Document Select will work only on a sorted index (see "Sort Index Procedures.")

To Select a Document Within the Index:

1. Press F1 to display the Index in which your document is located.
2. Hold down the CODE Key and press the HOME Key. A message appears asking you enter a document name.
3. Type the name of the document you would like to select exactly as it appears in the Index.
4. ENTER.
5. The Index will be displayed, starting with the document name you have just entered.

SECTION 4
EDITING TEXT

Locating Text

Once you have typed text and it appears on the screen, the cursor can be moved to any position within the text using either the Cursor Control Keys or the special GO TO function.

The Cursor Control Keys

The cursor has the flexibility to move in any direction when you use the Cursor Control Keys, which are located to the right of the Modified Typewriter Keys.

The Cursor Control Keys contain five (5) individual keys that when pressed move the cursor in a certain direction.

↑	Moves the cursor up
↓	Moves the cursor down
→	Moves the cursor to the right
←	Moves the cursor to the left
HOME	Used in combination with other keys to move the cursor to a specific location.

ALSO, when these keys are used in combination with each other, they move the cursor to exact locations in the text. First, the HOME key is pressed; then, the appropriate arrow key is pressed to move to a specific location. For example:

HOME + ←	Moves the cursor to the left screen boundary.
HOME + →	Moves the cursor to the right margin boundary.
HOME + ↓	Moves the cursor down 1 screenload (17 lines) to the last character position.
HOME + ↑	Moves the cursor up 1 screenload (17 lines) to the first character position.

GO TO Function

The GO TO function is an extremely flexible operation that will move the cursor very rapidly to a specified location in a document. By using this feature, the cursor can be quickly moved to the following locations within a document:

- Format Marker
- Page Number
- Next Home
- Previous Home
- End of Document
- Beginning of Document

To Access the Go To Operations

Instructions:

1. FIRST: You must enter the GO TO Operations by pressing F3 (GO TO). The GO TO function line will then be displayed at the top of the screen.
2. THEN: Press the defined function key for the location where you want the cursor to be moved. Each of these locations will be explained in detail below:
   - PRESS F1:FRMT MRKR (GO TO Format Marker)
     The cursor will move to the next format marker in the document. The GO TO function still remains active so you can move to the next format marker if desired.
   - PRESS F2:PAGE # (GO TO Page Number)

     THEN: (1) Type the number of the page where you wish the cursor to move (type any valid page number).

     (2) Press ENTER. The cursor will move to the top of the page you indicated.
   - PRESS F3:NEXT HOME (GO TO Next Home Position)
     The cursor will move to the Home position of the next page of text.
   - PRESS F4:PREV HOME (GO TO Previous Home Position)
     The cursor will move to the home position of the previous page immediately preceding where the cursor is located.
   - PRESS F5:END DOC (GO TO End of Document)
     The cursor will move to the last character of the document.
   - PRESS F6:BEGIN DOC (GO TO Beginning of Document)
     The cursor will move to the first character of the document.

Typographical Corrections

When you are typing, occasionally you may make a typographical error. Should this occur, there are five (5) basic text editing methods to use for simple corrections.

1. Backspace
2. Typeover
3. Character Out
4. Character Enter
5. Screen Keys

Backspace

On the 500 Series, the BACKSPACE key, located on the Modified Typewriter Keys, acts as a "rubout" key. When you press BACKSPACE, the character which you back over is deleted. The characters will continue to be deleted for as long as you hold down the key. This enables you to erase any errors to easily make necessary corrections and continue typing.

Typeover

At any time while you are typing, you can typeover an already keyboarded character with another character. You can make whatever changes are necessary by simply typing over the incorrect text with the corrections.

Character Out

The basic character out editing function is performed by pressing the CHAR OUT key located above the Cursor Control Keys. This key enables you to delete unwanted characters or codes without leaving a blank space. This means that as you press the CHAR OUT key, the text will be deleted and the remaining text will move to the left. The CHAR OUT key is a repetitive key which means that when it is depressed and held down, continuous characters will be deleted.

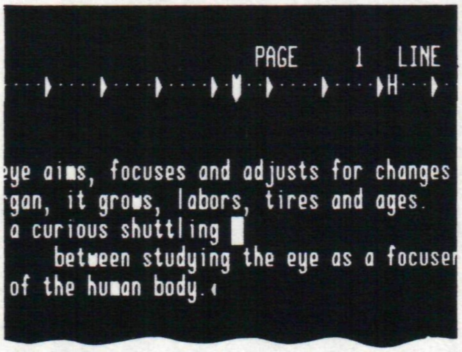
To Delete Text Using CHAR OUT

Instructions:

1. Position the cursor on the character you want deleted.
2. Press the CHAR OUT key once to delete a single character or hold it down to repetitively delete a string of characters.

Character Enter

The basic editing feature of character enter is performed by pressing the CHAR ENTER key located above the Cursor Control Keys. This feature allows you to insert new information into text that is already typed. After the CHAR ENTER key is pressed, all text that is keyboarded will be inserted at the position where the cursor was located. All of the text that appeared after the cursor will continuously move to the right and/or drop down a line as the new text is entered. The insert mode will end by pressing any one of the Cursor Control, Function, or CHAR OUT keys.



```
                    PAGE    1  LINE
····▸····▸····▸····▸·▾··▸····▸····▸H···▸·
eye aims, focuses and adjusts for changes
rgan, it grows, labors, tires and ages.
 a curious shuttling █
     between studying the eye as a focuser
 of the human body.‹
```

Text drops down a line as new text is entered

To Insert Text Using CHAR ENTER

Instructions:

1. Position the cursor at the position where you want the text to be inserted.
2. Press the CHAR ENTER key *once*.
3. Type the text you want inserted.
4. Press any of the Cursor Control Keys to end the Insert Mode.
5. Adjust the text to the specified margins. (See pages **4**/4 - **4**/16.)

Screen Keys

There are several keys which are used to perform specific basic editing tasks. These keys are located on the Screen/Numeric Keypad which is located on the far right of the Keyboard.

These Screen Keys perform specific functions that will be explained in detail below:

DEL SCRN (Delete Screen): Clears the entire screen of text as well as the text which has been scrolled but has not yet been stored (up to 6000 characters). This can be used when you want to delete a large quantity of text quickly or clear the screen.

To Delete a Screen of Text

Instructions:

1. Place the cursor anywhere on the screen.
2. Press DEL SCRN.

   Note: If a message appears indicating that you cannot clear the document, STORE must be pressed to store the remainder of the document. A store command had been previously given.

3. A message will appear for you to confirm your command. Answer "Y" and the text will be deleted immediately.

   Note: *If you answer "N", the command will be cancelled.*

DEL LINE (Delete Line): Deletes the entire line on which the cursor is positioned, up to and including the carriage return. The DEL LINE key is a repetitive key, so when it is held down, consecutive lines will be continuously deleted.

To Delete a Line

Instructions:

1. Position the cursor anywhere on the line to be deleted.
2. Press DEL LINE once and the complete line will be deleted.

DEL WORD (Delete Word): Deletes the word on which the cursor is placed, including the space and punctuation following the word. The DEL WORD key is a repetitive key, so when it is held down, consecutive words will be continuously deleted.

To Delete a Word

Instructions:

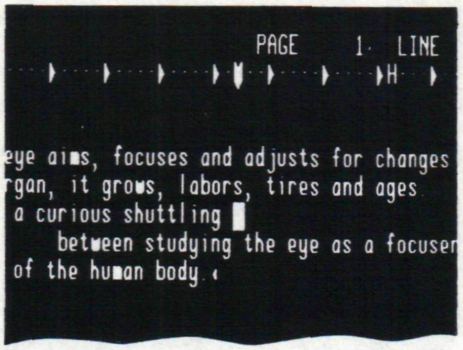
1. Position the cursor within the word to be deleted.
2. Press DEL WORD once, and the word and space following it will be deleted.

These Screen Keys will only work when you are not using the Numeric Keypad. After accessing the Numeric Keypad, these Screen Keys assume numerical values and will *not* perform their editing functions.

Adjusting Text

When text is originally typed, the text is automatically adjusted in word wraparound to the designated margin settings. However, during editing, text may be inserted or deleted thus rearranging the text format. In many instances, the text will have to be readjusted after editing to align the text again to the appropriate margin settings.

Text can be adjusted in two ways. The first method of adjustment is a paragraph adjust. With this method, only a single paragraph is adjusted. This can be used when editing has only been done in a portion of the document. The second method of adjustment is a document adjust. With this method, the *entire* document is adjusted at one time, eliminating adjustment of each paragraph separately.



```
                    PAGE     1  LINE

eye aims, focuses and adjusts for changes
rgan, it grows, labors, tires and ages
 a curious shuttling █
      between studying the eye as a focuser
 of the human body.
```

To Adjust Text

Instructions:

1. Place the cursor on or after the first line of the text you want to adjust.
2. Press F7 (Adjust) and the adjust prompt line will appear at the top of the screen.
3. Press F7 for PARAGRAPH ADJUST

   OR

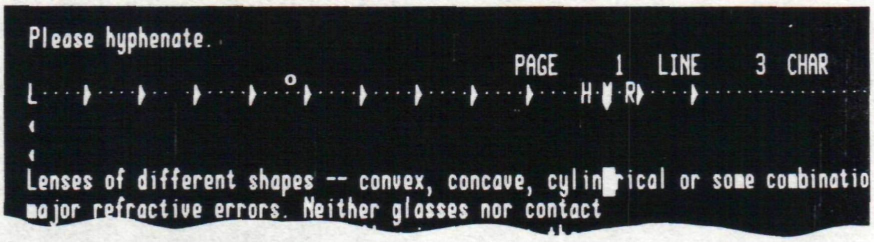
   Press F8 for DOCUMENT ADJUST

   The edited text will be quickly adjusted within the margin settings. With DOCUMENT ADJUST, the text reformats from the point where the cursor was positioned. All text prior to that will *not* be reformatted.

   Note: RESET may be pressed at any time to terminate the adjust process.

Hyphenation Decisions

If you hear a beep from the system when you are adjusting text, and the cursor has stopped at the end of a line prior to the end of the text, a hyphenation decision must be made. You may hyphenate the word, move the word to the next line and end the line before the hot zone, or leave the word on the line (making a long line).



```
Please hyphenate.
                                              PAGE     1  LINE     3  CHAR
L····▸····▸·· ·▸····▸··°▸····▸····▸····▸····▸····H·▼·R▸····▸··············
◂

◂
Lenses of different shapes -- convex, concave, cylin█rical or some combinatio
major refractive errors. Neither glasses nor contact
```

To Hyphenate the Word

Instructions:

1. When the "Please Hyphenate" prompt appears, use the Cursor Control Keys to position the cursor where you want the hyphen to be inserted.
2. Type a hyphen. Part of the word will remain on the line with a hyphen while the rest of the word wraps down to the beginning of the next line.
3. The remaining text will continue adjusting.

   This type of hyphen is known as a "soft" or temporary hyphen. If you should readjust the text; the hyphen appears in the word only if it is needed.

To Move the Word to the Next Line

Instructions:

RETURN. The word will be moved to the beginning of the next line, and the system will automatically continue adjusting.

To Leave the Word on the Line

Instructions:

1. Move the cursor to the right, past the word.
2. RETURN.

   Note: When hyphenating text created in proportional spacing, a beep will indicate the right margin.

Advanced Editing

Block Operations

With the block operations feature, you gain the increased editing capabilities of being able to define any amount of text to be moved, copied, saved, read, protected, or deleted with just a few easy steps.

How to Define a Block of Text

Instructions:

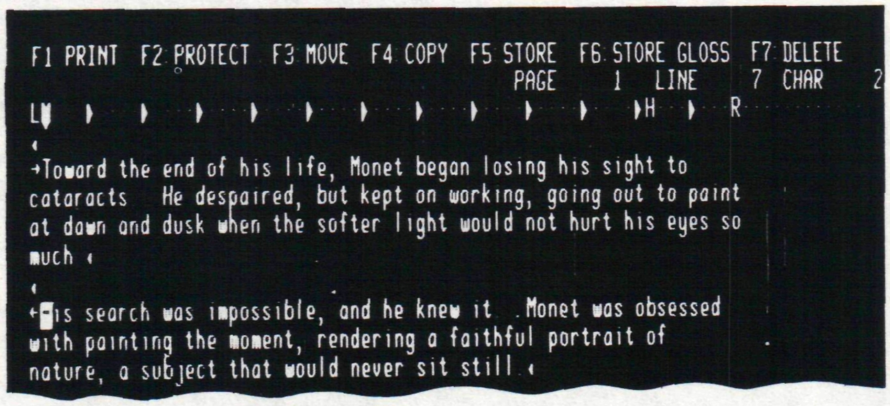
1. Press TRACE if you wish to include any format markers in the text, then press F4 (Block Operations).

   Note: A storage message may appear if you are performing this on a recalled document. Answer accordingly.

2. Move your cursor to the first character of the block.
3. Press ENTER. A block symbol will appear on the screen (→).
4. Move the cursor to the character position immediately following the block you are defining.

   Note: If you wish to include a RETURN as part of the block, position the cursor at the first character position, directly below the RETURN.

5. Press ENTER again and another symbol will appear to surround the block (←).



```
F1 PRINT  F2 PROTECT  F3 MOVE  F4 COPY  F5 STORE  F6 STORE GLOSS  F7 DELETE
                                            PAGE      1   LINE     7  CHAR    2
L▼  ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸H  ▸  R
◂
→Toward the end of his life, Monet began losing his sight to
cataracts  He despaired, but kept on working, going out to paint
at dawn and dusk when the softer light would not hurt his eyes so
much ◂
◂
←His search was impossible, and he knew it  .Monet was obsessed
with painting the moment, rendering a faithful portrait of
nature, a subject that would never sit still.◂
```

After you have defined a block of text, you can perform any of the following block operations.

- Block Move
- Block Copy
- Block Print (See Section 7)
- Block Delete
- Block Store/Read
- Block Protect
- Store Glossary (See Section 9)

Block Move: The block move function is used to move a selected portion of text. Text that is moved is *erased* from its original location then moved to a new specified position.

To Move a Block of Text

Instructions:

1. Press F4 (Block Operations).
2. Define the block of text to be moved.
3. Use the Cursor Control Keys to move the cursor to the position where you want the text to be moved.

   Note: There must be returns in the area where the text is to be moved. The function will not work on a blank portion of the screen.
4. Press F3 (Move).
5. Adjust the format of your document if required. (See pages **4**/4 -**4**/6.)

   Note: If the block is to be moved to existing text, the system will automatically insert the block and move the original text, located to the right of the cursor, below it.

Block Copy: The copy block instruction enables you to *duplicate* a defined quantity of text and copy it at another place within the document.

To Copy a Block of Text

Instructions:

1. Press F4 (Block Operations).
2. Define the block of text to be copied.
3. Use the Cursor Direction Keys to move the cursor to the position where you want a duplicate copy of the block.

   Note: There must be returns in the area where the text is to be moved. The function will not work on a blank portion of the screen.
4. Press F4 (Copy).

Block Delete: If you have to delete a large amount of text, the task can be done quickly and easily by defining the text as a block, and then deleting the entire block at one time.

To Delete a Block of Text

Instructions:

1. Press F4 (Block Operations).
2. Define the block of text to be deleted.
3. Press F7 (Delete).
4. A prompt will appear on the screen to confirm if you want to delete the block. ANSWER "Y."

   Note: If you change your mind at this point, answer "N" to cancel the command.

   The block you defined will be immediately deleted from the screen.

Block Store/Read: While inputting or editing, you may want to store a block of text as a separate document in the Index, so it can be read later and inserted into another document. To accomplish this efficiently, the block is stored as a unique document in the Index, then read again at the point where you want it inserted into the text. This stored block, however, cannot be deleted from the screen when read into other text.

To Store a Block of Text

Instructions:

1. Press F4 (Block Operations).
2. Define the block of text to be stored.
3. Press F5 (Store Block). A prompt appears to name the document.
4. Type the new name for the block (up to 34 characters). Indicate the drive letter with a colon if you wish to store on a different drive.

   Note: If this block is to be read to the screen using the READ key, the document name can *only* be up to 11 characters.
5. Press ENTER.

   The text defined as a block will now be stored in the Index as a separate document.

To Read a Block into Text

Instructions:

1. Be sure the document into which the block is to be inserted is displayed on the screen.
2. Move the cursor to the point where you want the block to be inserted.
3. Press F1 (Index Operations).
4. Press F12 (More) to see the specific block read prompt.
5. Move the cursor to the name of the block previously stored.
6. Press F10 (Read Block).

   The block will be inserted in the document at the point where the cursor was positioned.
7. Continue with your text entry or editing.

Block Protect: A block of text can be "protected" against pagination by using the Block Protect operation. This can be used for blocks of text that cannot be separated and must remain together on the same page at all times such as a chart or table.

To Protect a Block of Text

Instructions:

1. Press F4 (Block Operations).
2. Define the block of text to be protected.
3. Press F2 (Block Protect) Format markers are placed at the beginning and end of the block to indicate that it is protected.

Search and Replace Operations

Involved editing tasks can be significantly simplified using the search and replace operation. This feature provides the ability to search a document for a specific text string and then replace it with other text if required.

A text string can be any group of up to 34 characters. The system can search for ALL CASES of the string (including capitals, lowercase, etc.) or if specified, search only for an EXACT match of the string. This selection is made at the beginning of the search and replace operations.

Search string: Word Processing

EXACT MATCH

Word Processing	(Yes)
WORD PROCESSING	(No)

ALL CASES MATCH

Word Processing	(Yes)
WORD PROCESSING	(Yes)
word processing	(Yes)
-Word Processing-	(Yes)
Word Process- ing	(Yes)

With the search and replace feature, there are several different methods that you can use which depend on the applications involved. Any of the following methods can be performed:

- Search
- Search and Selectively Replace
- Global Search and Replace

Search: This method enables you to search for a specified text string. If desired, you can then manually enter the replacement text at various locations.

To Search for a Text String

Instructions:

1. Move the cursor to the top of the text you want to search.
2. Press F2 (Search and Replace) and the search and replace prompts will appear at the top of the screen.
3. Enter the type of search you wish to perform.

   Press F7 for ALL CASES MATCH
   OR
   Press F8 for an EXACT MATCH
4. Press F5 (Enter Search).
5. A prompt will appear. Type the text string you wish to search for (up to 34 characters).

   Note: Press BACKSPACE to correct any errors.
6. Press ENTER.
7. Press F2 (Search) and the cursor will move to the first occurrence of this word in the document.
8. At this time you can press F2 to move to the next occurrence of the word or press RESET to exit the search and replace function and type any replacement text.

Search and Selectively Replace: The search and selectively replace method allows you to manually search for a specified text string. You can then automatically replace it with a particular replacement string if desired or go on to the next occurrence of the word without making any changes.

To Search and Selectively Replace

Instructions:

1. Move the cursor to the top of the text you want to search.
2. Press F2 (Search and Replace) and the search and replace prompts will appear.
3. Enter the type of search you wish to perform:

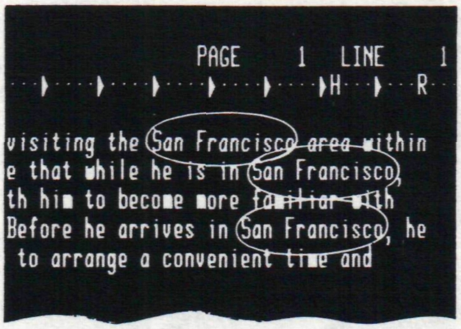
   Press F7 for ALL CASES MATCH
   OR
   Press F8 for an EXACT MATCH
4. Press F5 (Enter Search).
5. A prompt will appear. Type the text string you wish to search for (up to 34 characters).

   Note: Press BACKSPACE to correct any errors.
6. Press ENTER.
7. Press F6 (Enter Replace).
8. Another prompt will appear. Type the replacement text string (up to 34 characters).
9. Press ENTER.
10. Press F2 (Search) and the cursor will move to the first instance of this word in the document.
11. Decide whether to make a replacement or not:

    No Replacement: Press F2 (Search) again and the cursor will move to the next match of the word.

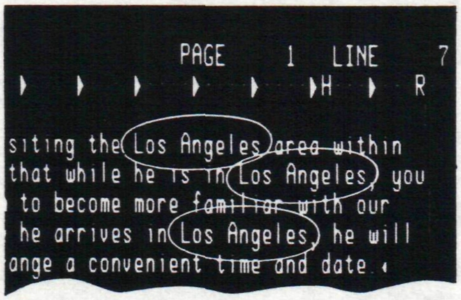
    To Replace Search String with Replacement Text: Press F3 (Replace) and the replacement string will be entered.
12. Continue to press F2 (Search) throughout the remainder of the document and make the replacement decisions as required.
13. Press RESET to terminate the search and replace function.

    Note: The document should be adjusted after replacements have been made.



```
                    PAGE      1   LINE      1
···▸·····▸·····▸·····▸·····▸·····▸H···▸···R···

visiting the San Francisco area within
e that ■hile he is in San Francisco,
th hi■ to beco■e ■ore fa■iliar ■ith
Before he arrives in San Francisco, he
 to arrange a convenient ti■e and
```



```
                  PAGE      1   LINE      7
 ▸    ▸    ▸    ▸    ▸    ▸H   ▸   R

siting the Los Angeles area within
that while he is in Los Angeles, you
 to become more familiar with our
 he arrives in Los Angeles, he will
ange a convenient time and date.‹
```

Global Search and Replace: With global search and replace, *all* occurrences of a text string will be replaced automatically throughout an entire document.

To Globally Search and Replace Text

Instructions:

1. Move the cursor to the top of the text you want to search.
2. Press F2 (Search and Replace).
3. Enter the type of search you wish to perform:

   Press F7 for ALL CASES MATCH
   OR
   Press F8 for an EXACT MATCH

4. Press F5 (Enter Search).
5. A prompt will appear. Type the text string you wish to search for (up to 34 characters) or press ENTER to use the search string previously entered (shown below).

   Note: Press BACKSPACE to correct any errors.

6. Press ENTER.
7. Press F6 (Enter Replace).
8. Another prompt will appear. Type the replacement text string (up to 34 characters) or press ENTER to use the search string previously entered (shown below).
9. Press ENTER.
10. Press F4 (Global). ALL of the cases of the text string will be globally searched and replaced.

    Note: If the document is longer than 6000 characters, the prompt for document storage may come up. Answer "Y" to overstore the original or "N", and then enter a new document name. The system will continue its search operation.

11. A message will appear at the top of the screen indicating the number of replacements that were made. Press RETURN to continue.

    Note: RESET can be pressed at any time to terminate global search and replace.

Special Search and Replace Applications

Searching and Deleting Text: A string of characters may have to be deleted from text. This means that a string of characters will be removed from the text with "nothing" replacing it. To do this a RETURN must act as the replacement string to indicate there is *no* replacement. The RETURN is especially designated as shown in the chart.

To Search and Delete Text

Instructions:

1. Move the cursor to the top of the text to be searched.
2. Press F2 (Search and Replace).
3. Enter the type of search you want to perform:

   Press F7 for ALL CASES MATCH
   OR
   Press F8 for an EXACT MATCH
4. Press F5 (Enter Search).
5. A prompt will appear. Type the text string to be deleted (up to 34 characters).
6. Press ENTER.
7. Press F6 (Enter Replace).
8. Enter a backslash and a zero (\ ).
9. Press ENTER.
10. Select the search method you wish to use.

    F2: SEARCH
    OR
    F4: GLOBAL

Search for Codes and Format Symbols: In some instances you may want to search and/or replace special codes or format symbols which are included in the text. This can be done by entering a backslash (\ ) and a unique letter (uppercase) as the search and/or replace string to represent the coded function or symbol. A chart listing these codes and symbols is shown below.

Functions	**Search/Replace String**
Field Code	\D
Subscript	\F
Begin/End Overstrike	\G
Backspace	\H
Tab	\I
Non-required Carriage Return	\J
Required Page Break	\K
Temporary Page Break	\L
Required Carriage Return	\M
Superscript	\O
Begin/End Optional Text	\P
Reserved	\R
Begin/End Bold Print	\S
Begin/End Underline	\T
Centering*	\U
Soft Hyphen	\X
Page Number Code	\\
Coded Space	\— (shift + dash)

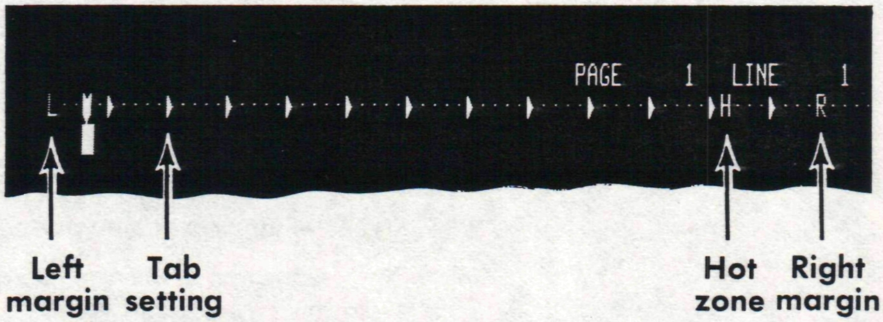
*Must be in Trace Mode.

SECTION 5
FORMATTING TEXT

The Format Line

The format line, located at the top of the screen, indicates the left margin, the right margin, the location of the cursor, the hot zone, and tab settings.

The format line is used as a visual aid for operators. This is needed because there are times when more than one format is used in the body of the text. The format line is used to actually see what the format is for any portion of text in the body of a document.



Format Line Default Settings

The default settings are the standard locations of the left and right margins, the hot zone and the tabs.

When the system has loaded the software and the time and date have been entered, the next items shown on the screen will be the status message and format line. You will note that the format line will have left and right margins, a hot zone, and tab stops that are preset for you. These are known as the format line default settings. The system will default to these format line values whenever you load the software and/or start a new document. These Format line default values are:

Left Margin 1	Hot Zone 8
Right Margin 65	Tabs every 5 spaces

The standard default values can be changed, if required, to meet specific applications. (See Section 8.)

Changing the Margins

Margins can easily be changed at the beginning of a document or anywhere within the body of a document. Changing the margins, however, will NOT affect the standard default margins. These default settings will remain in effect for your next document.

Within a single document, the margins can be changed, either before text is typed or after it has been typed, if necessary. A special format marker, which is explained later in this section, will be embedded into the text to indicate the margin changes wherever they occur.

To Change the Left Margin

Instructions:

1. Position the cursor on the line above where the new margin should begin and press CODE + F5 (Margin and Indent).
2. Using the Cursor Control Keys, move the cursor to the position where the left margin is to be located.
3. Press F5 (Left Margin).
4. Press RESET to move back to your text or follow steps 2 through 4 in the *right margin instructions below* to change the right margin.

   The "L" indicating the new left margin will appear on the format line when you move your cursor.
5. Type the text at the new margin setting or adjust the existing text to this new margin value.

To Change the Right Margin

Instructions:

1. Position the cursor on the line above where the new margin is to begin and press CODE + F5 (Margin and Indent).
2. Using the Cursor Control Keys, move the cursor to the position where you want the right margin to be located.
3. Press F6 (Right Margin).
4. Press RESET to return to typing on the screen.
5. Type the text at the new margin setting or adjust the existing text to this new margin value.

   An "R" indicating the new right margin will appear on the format line when you move the cursor.

   The hot zone is automatically repositioned to correspond with the new right margin. The size of the hot zone can be changed through the Variable Line Formats Document Status Menu.

To Change Both Margins

Instructions:

1. You can change both the left and right margin by pressing CODE + F5, moving the cursor to where the new left margin is to be located, and pressing F5 (Left Margin).
2. Then, move the cursor to where the new right margin is to be located and press F6 (Right Margin).
3. Press RESET to return to typing on the screen.

The Hot Zone

The hot zone indicates the area before the right margin where word-wrap and hyphenation decisions are made. The default setting is 8 spaces. This value is selected through the Variable Line Formats Document Status Menu and can be changed at any time.

The size of the hot zone will determine how your text will wrap at the right margin and the amount of hyphenation decisions that will be required. The larger the hot zone, the fewer the hyphenation decisions that will be requested, thus leaving a more ragged right margin. When the hot zone is smaller, hyphenation decisions will be required more frequently. The smallest hot zone value that can be selected is 3.

To Change the Hot Zone

Instructions:

1. Position the cursor on the line above where the new hot zone is to begin.
2. Press CODE + F7 (Status Menus).
3. Press F7 (DOCUMENT STATUS MENU).
4. Press CODE + ↓ to select the Variable Line Formats Menu, then using the Cursor Control Keys, move your cursor and change the hot zone value to a number, not less than 3 characters.
5. Press ENTER.
6. Press RETURN to go back to the document.

   When you store your document, the menu with the new hot zone value will be stored along with the document.

Indenting Text

In some documents you may have to indent a portion of text from the left and/or right margin. The 500 Series gives you the option to indent text in several different ways.

- **Left Indent:** The text will be indented from the left margin setting.
- **Right Indent:** The text will be indented from the right margin setting.
- **Center Indent:** The indented text will be centered between the left and right margin settings.

When text is indented, the system will remember the original left and right margin settings so they can be returned to when the indent is ended. A format marker, which is explained later in this section, will be embedded in the text to indicate where the indents occur.

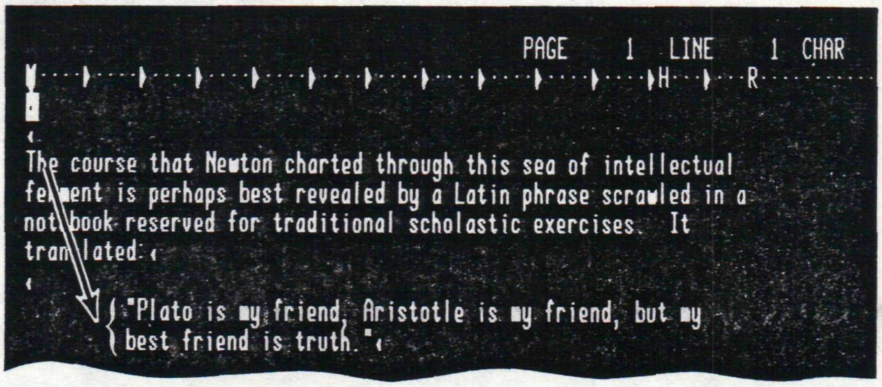
To Left Indent

Instructions:

1. Move the cursor to the line *above* where you want the left indent to begin.
2. Press CODE + F5 (Margin and Indent).
3. Move the cursor horizontally to where you would like the indent to be positioned.
4. Press F7 (Left Indent).
5. Press RESET.

   The "L" that indicated the left margin on the format line will now indicate the left indent position.
6. Type the text to be indented.
7. After the last text to be indented, press CODE + F5, then press F9 (End Indent) to end the indent instruction. The format line will return to the original left and right margin settings.

   Note: If you are indenting existing text, adjust the text to the new indent position.



```
                                             PAGE    1  LINE    1  CHAR
▮····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸H··▸··R·········
▮
‹
The course that Newton charted through this sea of intellectual
ferment is perhaps best revealed by a Latin phrase scrawled in a
notebook reserved for traditional scholastic exercises.  It
translated:‹
‹
        {"Plato is my friend, Aristotle is my friend, but my
        {best friend is truth."‹
```

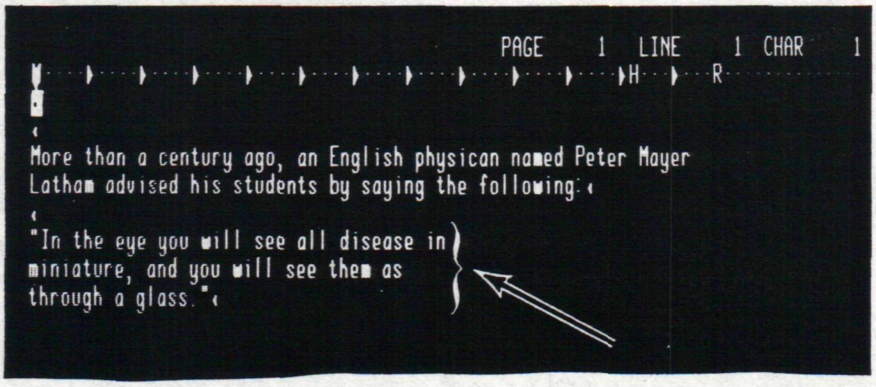
To Right Indent

Instructions:

1. On the line above where you want the text to be indented, press CODE + F5 (Margin and Indent).
2. Move the cursor to the position where you want the right indent to begin.
3. Press F8 (Right Indent).
4. Press RESET.

   The "R" that indicated the right margin on the format line will now indicate the right indent position.
5. Type the text to be indented.
6. After the last text to be indented, press CODE + F5, then press F9 (End Indent) to end the indent instruction. The format line will return to the original left and right margin settings.

   Note: If you are indenting existing text, adjust the text to the new indent position.



```
                                                PAGE    1  LINE    1  CHAR    1
‹
More than a century ago, an English physican named Peter Mayer
Latham advised his students by saying the following:‹
‹
"In the eye you will see all disease in
miniature, and you will see them as
through a glass."‹
```

To Set Both Indents

Instructions:

1. You can change both the left and right indent by pressing CODE + F5 (Margin and Indent), moving the cursor to where the left indent is to be located, and pressing F7 (Left Indent).
2. Then, move the cursor to where the right indent is to be located and press F8 (Right Indent).
3. Press RESET to return to typing on the screen.

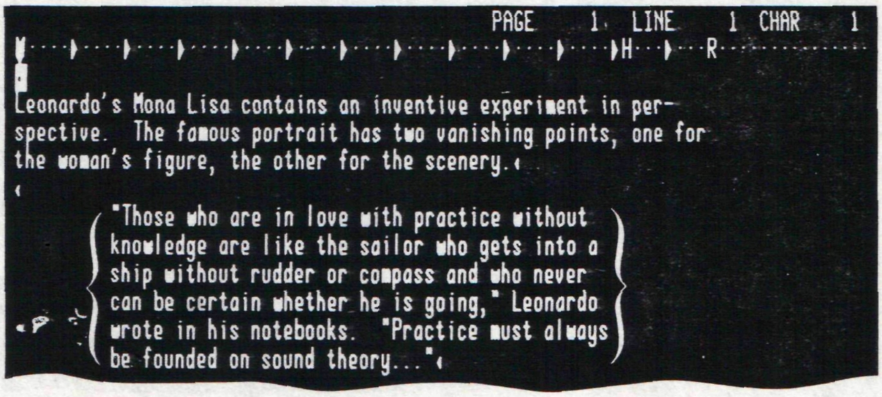
To Center Indent

Instructions:

1. On the line above where you want the text to be indented, press CODE + F5 (Margin and Indent).
2. Move the cursor from the left margin to the position where you want the center indent to begin.
3. Press F10 (CENTER INDENT).

   EXAMPLE: If you move the cursor 10 spaces in from the left margin and press F10 (CENTER INDENT), the text will automatically be indented 10 spaces from the right margin as well.
4. Type the text to be indented.
5. After the last text to be indented, press CODE + F5, then press F9 (End Indent) to end the indent instruction. The format line will return to the original left and right margin settings.

   Note: If you are indenting existing text, adjust the text to the new indent position.



```
                                                PAGE     1  LINE     1  CHAR     1

Leonardo's Mona Lisa contains an inventive experiment in per-
spective.  The famous portrait has two vanishing points, one for
the woman's figure, the other for the scenery.

    "Those who are in love with practice without
    knowledge are like the sailor who gets into a
    ship without rudder or compass and who never
    can be certain whether he is going," Leonardo
    wrote in his notebooks.  "Practice must always
    be founded on sound theory..."
```

Text Adjustment

When margin formats or indents are changed, the text must be adjusted to align properly to the new format. The adjust function gives you the ability to automatically make the format adjustment in either a single paragraph or throughout an entire document. Procedures as described in Section 4 should be followed.

Tabs

The special tab function will facilitate in formatting, editing, and column manipulation. There are several kinds of tabs that can be set which are:

- Standard Tabs
- Decimal Tabs
- Centered Tabs
- Right Alignment Tabs
- Character Alignment Tabs

Tab settings appear on the format line and are set on a tab grid which appears on the screen. Any existing tab settings can also be removed if required. Once a tab has been set or removed, a special format marker, which will be explained later in this section will be embedded in the text to indicate where all tab selections have been made.

The default tab settings are set with standard tabs every 5 spaces. These default tab settings can be changed by using the SET DEFAULTS process which is explained in detail in Section 8.

Removing Tabs

Tabs that are not required or are not being used can be deleted from the format line either individually or all at once.

Removing One Tab: If you want to remove only one tab setting, this can easily be done.

To Remove a Tab

Instructions:

1. Press F5 (Tabs). The tab grid will appear on the line where the cursor was located on the screen.
2. Position the cursor on the tab to be removed.
3. Press F5 (SET/REMOVE). Notice that the tab symbol that was located under the cursor has been removed.
4. Press RESET to return to the screen.

Removing All Tabs: If there are several tabs to be removed, all of the tabs can be automatically removed at once using only *one* keystroke. This method, however, can only be used if tabs have *not* been previously set on the same line.

To Clear all Tabs

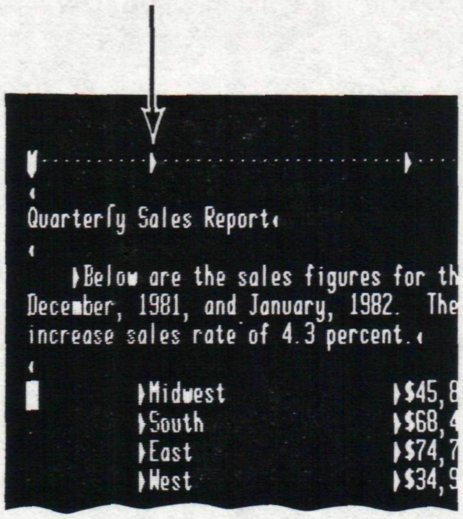
Instructions:

1. Move the cursor to the position in the document where you want to clear the tabs.
2. Press F5 (Tabs). The tab grid will appear on the line where the cursor was located.
3. Press F4 (CLEAR). All tabs will be cleared.
4. Press RESET to remove the tab grid and return to the typing screen.

   Note: Tab settings can also be cleared by deleting the format markers representing the tab setting (see "Identifying Existing Formats" in this section).

Standard Tabs

Standard tabs are set so that text that is typed will align on the first character at the tab setting.



```
▼··········▸························▸···

Quarterly Sales Report◂
◂
    ▸Below are the sales figures for th
December, 1981, and January, 1982.  The
increase sales rate of 4.3 percent.◂
◂
█          ▸Midwest                ▸$45,8
           ▸South                  ▸$68,4
           ▸East                   ▸$74,7
           ▸West                   ▸$34,9
```

To Set a Standard Tab

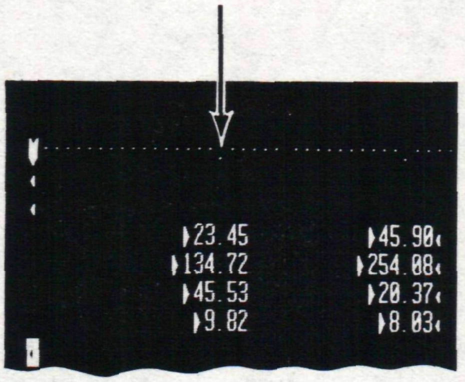
Instructions:

1. Position the cursor on the line where the tabs are to be set. It is recommended that you set them 1 line above where they are to be used.
2. Press F5 (Tabs).
3. A tab grid will appear on the line where the cursor was located on the screen. Clear any tabs not needed by following the instructions previously explained.
4. Using the Cursor Control Keys, move the cursor to the position where you want the new tab to be set.
5. Press F5 (Set/Remove). The standard tab symbol (▸) will appear.
6. Press RESET to remove the grid from the screen.

   Notice that the new tab setting now appears on the format line at the top of the screen.

Decimal Tabs

Decimal tabs are used for typing columns of figures which contain decimal points. With a decimal tab, all numbers typed in a column at this tab position will align on the decimal point in each number.



```
▼··························································
◂
◂
                ▸23.45                 ▸45.90◂
               ▸134.72                ▸254.08◂
                ▸45.53                 ▸20.37◂
                 ▸9.82                  ▸8.03◂
◂
```

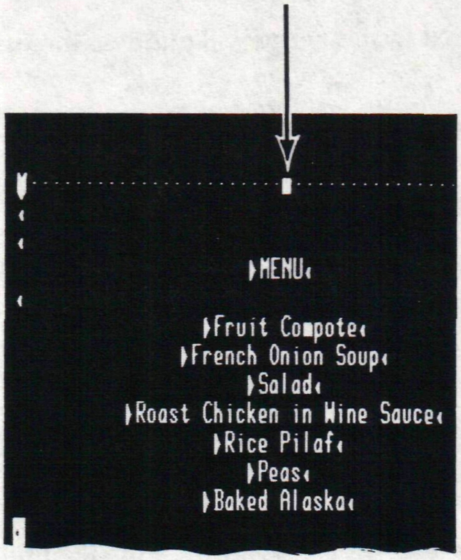
To Set a Decimal Tab

Instructions:

1. Position the cursor on the line where the tabs are to be set. It is recommended that you set them 1 line above where they are to be used.
2. Press F5 (Tabs). The tab grid will appear on the screen.
3. Remove any unwanted tabs by following the instructions previously explained.
4. Move the cursor to the position where you want the decimal tab to be located.
5. Type a period (.), and notice that a period will appear at that position when you move the cursor.
6. Press RESET. The tab grid will be removed from the screen and the format line will show the decimal tabs that were set.

Center Tabs

A center tab is set so that all text in the column will be centered around the tab setting.



```
MENU

Fruit Compote
French Onion Soup
Salad
Roast Chicken in Wine Sauce
Rice Pilaf
Peas
Baked Alaska
```

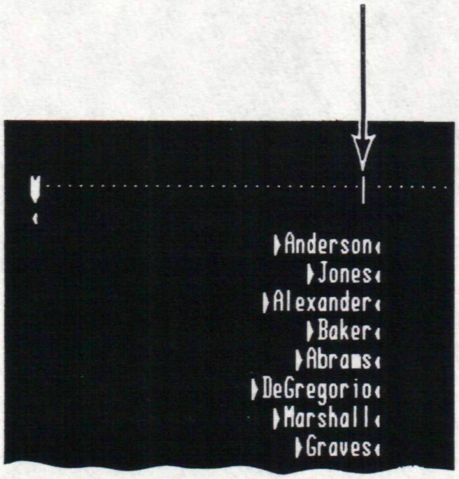
To Set a Centered Tab

Instructions:

1. Position the cursor on the line where the tabs are to be set. It is recommended that you set them 1 line above where they are to be used.
2. Press F5 (Tabs). The tab grid will appear on the screen.
3. Remove any unwanted tabs by following the instructions previously explained.
4. Move the cursor to the position where you want the center tab to be inserted.
5. Press F6 (CENTER). The center tab symbol (⊞) will appear.
6. Press RESET to remove the tab grid from the screen. The center tab setting will appear on the format line.

Right Alignment Tabs

A right alignment tab creates an alignment on the far right character in a column.



```
Anderson
   Jones
Alexander
   Baker
  Abrams
DeGregorio
 Marshall
  Graves
```

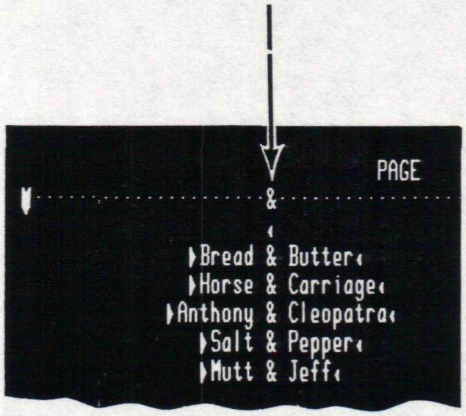
To Set a Right Alignment Tab

Instructions:

1. Position the cursor on the line where the tabs are to be set. It is recommended that you set them 1 line above where they are to be used.
2. Press F5 (Tabs). The tab grid will appear on the screen.
3. Clear any unwanted tabs by following the instructions previously explained.
4. Move the cursor to the character position where you want the column to right align.
5. Press F7 (RIGHT). The right alignment character symbol (|) will appear on the tab grid when you move the cursor.
6. Press RESET to remove the tab grid and return to the screen. The right alignment tab setting will appear on the format line.

Character Alignment Tabs

Text can be aligned on any character using a character alignment tab. With this type of tab, text will align on whatever character you choose to select. This alignment character, however, cannot be any coded characters, such as underscore, bold, etc., or TAB or RETURN.



```
                          PAGE
▼.................&...............
                  ◂
          ▸Bread & Butter◂
          ▸Horse & Carriage◂
        ▸Anthony & Cleopatra◂
           ▸Salt & Pepper◂
           ▸Mutt & Jeff◂
```

To Set Character Alignment Tabs

Instructions:

1. Position the cursor on the line where the tabs are to be set. It is recommended that you set them 1 line above where they are to be used.
2. Press F5 (Tabs). The tab grid will appear on the screen.
3. Clear any unwanted tabs by following the instructions previously explained.
4. Move the cursor to the position where you want the character aligned column to be located.
5. Type the alignment character you select.
6. Press RESET to return to the typing screen and remove the tab grid. The alignment character tab setting will appear on the format line.

The Tab Key

The TAB key, located on the Modified Typewriter Keys, is used to move the cursor directly to the tab position. When you are typing text, if the TAB key is pressed, the cursor automatically moves to the tab position and you can continue typing. During editing, if you are in the insert mode when the TAB key is pressed, a tab position will be inserted between the text. If you are overstriking text, the cursor will be moved directly to the next tab position when pressing TAB.

When typing columns, the TAB key is used to move to the first column. Then, after you type the text and press TAB again, the column will be aligned according to the type of tab that is set. The cursor will then be positioned at the next tab setting. A special tab symbol (▶) appears to designate the use of the TAB key. Once you have reached the last column in a line, the text at the tab setting will align when you press RETURN to move to the next line.

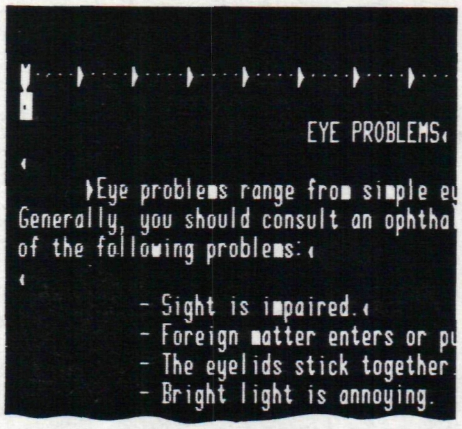
Identifying Existing Formats

The Trace Mode

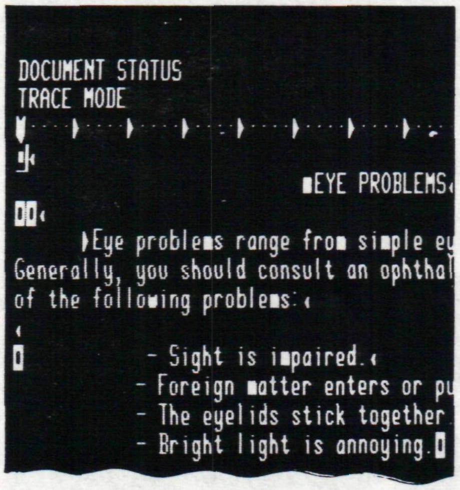
The trace mode gives you the ability to see what trace mode markers are in the text and where they are located. These trace mode markers are otherwise hidden from you, but are known to the system.

The trace mode should only be used to check or delete a trace mode marker. It should not be used when typing because it slows the screen's response to both typing and cursor motion.

The trace mode is accessed by using the TRACE key located on the Screen/Numeric Keypad. This key acts as a toggle key. When first pressed, you will enter the trace mode, and a message will appear in the Status area to indicate that the trace mode has been accessed. When it is pressed again, normal screen operations will continue.



```
                         EYE PROBLEMS‹
‹
     ▸Eye problems range from simple ey
Generally, you should consult an ophthal
of the following problems:‹
‹
          - Sight is impaired.‹
          - Foreign matter enters or pu
          - The eyelids stick together
          - Bright light is annoying.
```



```
DOCUMENT STATUS
TRACE MODE

                        ▪EYE PROBLEMS‹
▯▯‹
     ▸Eye problems range from simple ey
Generally, you should consult an ophthal
of the following problems:‹
‹
▯          - Sight is impaired.‹
          - Foreign matter enters or pu
          - The eyelids stick together
          - Bright light is annoying.▯
```

To Access the Trace Mode

Instructions:

1. Press the TRACE key located on the Screen/Numeric Keypad.
2. Observe the codes and format markers and make any necessary corrections.
3. Press the TRACE key again to return to normal screen operations.

Special Trace Mode: Many of the coded functions such as underscore and bold and special symbols, such as tabs, destroy the visual format of the text on the screen. These can be temporarily removed from the screen by using the special trace mode to enable you to align text properly and view it as it will appear on a printout.

The special trace mode should only be used to view the text format. Text should *not* be edited while in this mode to avoid the possibility of typing over or deleting any of the unseen codes.

To Access the Special Trace Mode

Instructions:

1. Be sure the regular Trace Mode is *not* on.
2. Press CODE + TRACE to remove codes and symbols from the screen.
3. Press CODE + TRACE again to return them to the display screen.

Trace Mode Markers

When you are giving the system an instruction, such as to center text, an invisible symbol is inserted on the screen. This symbol is called a trace mode marker, and it directs the system to format the text in special ways.

Trace mode markers are stored along with the document. When the document is read back to the screen for editing, it is helpful for you to know what particular trace mode markers are in the text and where they are located.

Listed below are the different trace mode markers that will appear on the screen when you are in the trace mode:

Marker	Name	System Instruction
⊞	Center Marker	Center the characters that follow on the line.
—	Soft Hyphen	Hyphen that is inserted at the end of a line.
▮	Format Marker	Begins a certain format.
β	Form Space Marker	Begins or ends the protected space in a form.

Trace Mode Markers can be deleted, thus deleting the instructions they represent.

To Delete a Trace Mode Marker

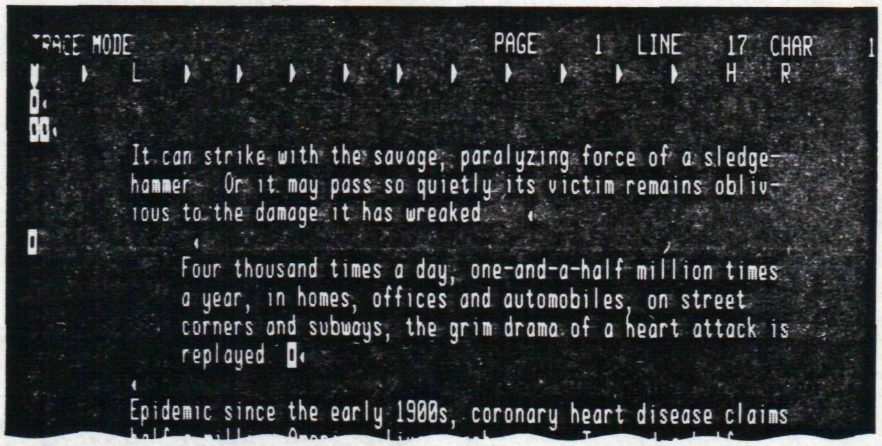
Instructions:

1. Press the TRACE key to go into Trace Mode.
2. Position the cursor on the Trace Mode marker you want removed.
3. Press CHAR OUT (character out) and the Trace Mode Marker will be removed from the text.
4. Press the TRACE key again to exit the Trace Mode.

Format Markers

Format markers are a special type of trace mode marker that are commonly used in documents. The symbol for a format marker looks like a cursor with a hole in the center (▮). Format markers contain instructions to begin a certain format. That format stays in effect until the end of the document or until another format marker is inserted to change the format instruction.

EXAMPLE: Suppose your margins are changed at the beginning of your document to Left—11 and Right—71. You have typed a paragraph of text and now need to left indent the next paragraph. At the end of the paragraph, you wish to go back to your original margins for the rest of the document, which you do. There are now 5 format markers that are hidden from you until you enter trace mode. There is 1 for each format change that was made as well as 1 for the Document Status Menus.



```
TRACE MODE                               PAGE     1   LINE    17  CHAR     1
▮   ▸   L   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   H   R
▮◂
▮▮◂
           It can strike with the savage, paralyzing force of a sledge-
           hammer.  Or it may pass so quietly its victim remains obliv-
           ious to the damage it has wreaked.    ◂
▮
               ◂
               Four thousand times a day, one-and-a-half million times
               a year, in homes, offices and automobiles, on street
               corners and subways, the grim drama of a heart attack is
               replayed. ▮◂
           ◂
           Epidemic since the early 1900s, coronary heart disease claims
```

These format markers are very useful because they allow you to view where all of the format changes occur. They also have information included with them to tell you what the specific format changes are. You simply place the cursor on the format marker and a message will appear on the status line to indicate its purpose.

To Display Format Marker Information

Instructions:

1. Press the TRACE key to enter the Trace Mode.
2. Place the cursor on the format marker.
3. The description of the format marker will display at the top of the screen in the status line.
4. Press the TRACE key again to exit the Trace Mode.

Format markers can be deleted, thus deleting the particular format they represent.

To Delete a Format Marker

Instructions:

1. Press the TRACE key to go into the Trace Mode.
2. Place the cursor on the format marker you want removed.
3. Press CHAR OUT (Character out) and the format marker will be removed from the text.
4. Press the TRACE key again to exit the Trace Mode.

Special Formats

Justification

Justification is a special formatting feature which allows you to make all of the lines in a document exactly the same length, to produce an even right-hand margin. The system formats the text by adding a fraction of space between each character and word. This spreads out every line to fit evenly between the left and right margins. All lines of text that do not end with a hard RETURN will be justified.

Justification is selected by making a special entry in the Document Status Menu. When the selection is made, the text will be justified on the screen, as well as on the printout.

To Define Text for Justification

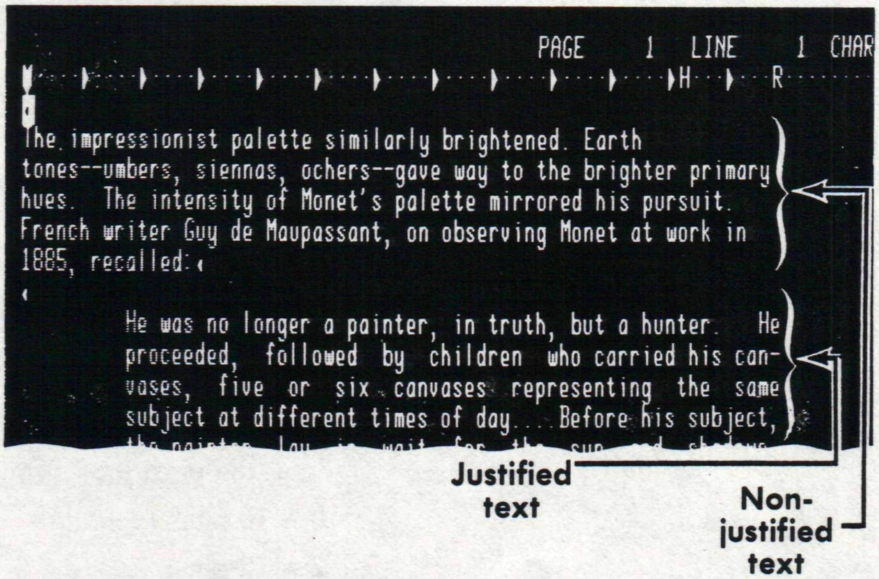
Instructions:

1. Position the cursor at the beginning of the first line of the text to be justified.
2. Press CODE + F7 (STATUS MENUS).
3. Press F7 again to select the Document Status Menus (use CODE + DOWN ARROW to scroll to the Variable Line Formats Menu if you are on line 1 of your document).
4. Move the cursor to the JUSTIFICATION selection in the Variable Line Format Menu.
5. Enter a "Y."
6. Press ENTER to enter the new value.
7. Press RETURN to return to the document. A format marker will be placed on the line which tells the system to justify text from that point in the document. (The format marker can be viewed in Trace Mode.)
8. At the end of the text to be justified, access the menu once again and return the justification selection to "N."

To See Justification on the Screen

Instructions:

1. After selecting justification in the Variable Line Formats Document Status Menu, position the cursor on the first line of the text to be justified.
2. Press F7 (Adjust).
3. Select either F7 (PARA ADJ) or F8 (DOC ADJUST). The text will be adjusted and appear justified on the screen.



```
                              PAGE    1  LINE    1  CHAR

The impressionist palette similarly brightened. Earth
tones--umbers, siennas, ochers--gave way to the brighter primary
hues.  The intensity of Monet's palette mirrored his pursuit.
French writer Guy de Maupassant, on observing Monet at work in
1885, recalled:

      He was no longer a painter, in truth, but a hunter.   He
      proceeded,  followed  by  children  who carried his can-
      vases,  five  or  six  canvases  representing  the  same
      subject at different times of day... Before his subject,
```

To Discontinue Justification

Instructions:

1. Position the cursor at the beginning of the text to be unjustified.
2. Press CODE + F7 (STATUS MENUS).
3. Press F7 again to select the Document Status Menus (use CODE + DOWN ARROW to scroll to the Variable Line Formats Menu if you are on line 1 of your document).
4. Move the cursor to the JUSTIFICATION selection in the Variable Line Format Menu.
5. Enter a "N."
6. Press ENTER to enter the new value.
7. Press RETURN to return to the document.

   Note: If text was previously justified, adjust the text to unjustify it.

Pitch Selection

The pitch of a document can be changed at the beginning of a document or at any time within the text. The available pitch selections include:

10 pitch = 10 characters per inch (Default value)
12 pitch = 12 characters per inch
15 pitch = 15 characters per inch
P = Proportional (explained in detail next)

The pitch is selected through the Variable Line Formats Document Status Menu, by indicating the pitch to be used. When you have selected a pitch, the specific printwheel for that pitch should be inserted in the printer (see Section 7).

To Change Pitch Selection

Instructions:

1. Position the cursor 1 line above where the pitch selection is to be made.
2. Press CODE + F7 (STATUS MENUS).
3. Press F7 again to select the Document Status Menus (use CODE + DOWN ARROW to scroll to the Variable Line Formats Menu if you are on line 1 of your document).
4. Move the cursor to the PITCH selection.
5. Enter the pitch that is required.

   10 = 10 pitch (default)

   12 = 12 pitch

   15 = 15 pitch

   P = Proportional spacing
6. Press ENTER to enter the selection.
7. Press RETURN to return to the text.

   Note: Change the printwheel accordingly upon printout.

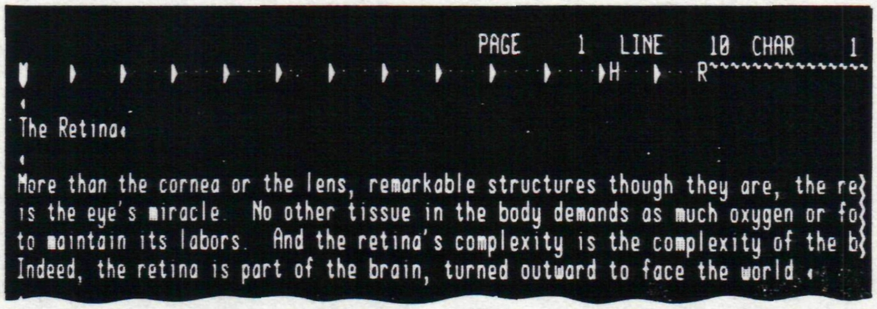
Proportional Spacing

With a standard typewriter, each character takes up the same amount of space. Using proportional spacing, each character is spaced according to its width. For example, an "m" would take up more space than the letter "i." Proportional spacing provides a professional-looking document which looks like typeset text.

Special Considerations When Typing With Proportional Spacing

1. Settings are measured in twelfths of an inch — one inch equals 12 spaces. Remember this when setting margins, indents, and tabs.

   For example, to establish a six-inch writing line, the margins would be set at 1 and 72 (6 × 12 = 72). To set a tab two inches in from the left margin, the tab should be set 24 positions in from the left margin (2 × 12 = 24).
2. Text will appear with regular character spacing on the screen, but will print in proportional spacing.
3. The right margin should not be set beyond character position 194.
4. When using proportional spacing, more copy will fit on a line. Therefore, a wavy line will appear beyond the right margin setting on the format line. This indicates that text appears beyond the right margin on the screen. This text, however, is printed correctly.
5. After typing proportionally spaced text, the text must be adjusted.
6. To use proportional spacing, selections must be made in the Document Status Menu and the Printer Status Menu, and a proportional printwheel must be inserted into the Printer before printing the text.



```
                                                    PAGE    1  LINE   10  CHAR    1
▼   ▶   ▶   ▶   ▶   ▶   ▶   ▶   ▶   ▶   ▶   ▶H  ▶   R~~~~~~~~~~~~~~~~~
◂
The Retina◂
◂
More than the cornea or the lens, remarkable structures though they are, the re}
is the eye's miracle.  No other tissue in the body demands as much oxygen or fo}
to maintain its labors.  And the retina's complexity is the complexity of the b}
Indeed, the retina is part of the brain, turned outward to face the world.◂
```

To Use Proportional Spacing

Instructions:

1. Press CODE + F7 (STATUS MENUS) one line above the text to be proportionally spaced.
2. Press F7 once again to select the Document Status Menus. (Use CODE + DOWN ARROW to scroll to the Variable Line Formats Menu if you are on line 1 of the document.)
3. Use the Cursor Down key to move to the "Pitch" selection.
4. Type a "P" for proportional spacing.
5. Press ENTER.
6. Press RETURN to go back to the document.

   Note: If text was originally typed in another pitch, adjust the text by pressing F7, then F7 or F8 to obtain proper proportional text alignment.

Before Printing:

1. Press CODE + F7 (STATUS MENUS).
2. Press F8 (PRINTER STATUS MENUS).
3. Use the Cursor Down key to move to the "Printwheel" selection.
4. Type the proportional printwheel number (0132).
5. Press ENTER.
6. Press RETURN to remove the menu from the screen.
7. Insert a proportional printwheel into the printer (See Section 7).
8. Print the text. (See Section 7.)

When editing proportionally spaced text which appears beyond the right margin (in the wavy line area), use CHAR ENTER, CHAR OUT, and overtyping.

Line Spacing

The line spacing of a document can be changed by indicating the format selection in the Variable Line Format Document Status Menu, directly above the text where the line spacing will change. Line spacing requirements other than single-spacing will *not* appear on the screen. The specified spacing, however, will be incorporated when paginating the document and upon printout. The line spacing value will automatically be calculated and changed by the system if the lines per inch value does not correspond correctly with the selected line-spacing.

Pagination

Pagination is the process of identifying the line where pages will end. This ensures that there will be the appropriate number of lines on a page during printout. If you choose, you may input the page endings while inputting the document, or you may let the system do it for you.

During pagination, page breaks are inserted throughout the text to divide the text into individual pages. The system inserts temporary page breaks which can be changed if the document length is altered and repagination is performed. The page endings are set based on the standard page length selections you make in the Document Status Menu for first line formats.

Answering the Document Status Questions

These four selections should be made before paginating the document:

Paper Length in Lines: Make this selection for the size of the paper on which you will be printing the document. To calculate this, multiply the number of lines per inch times the number of inches in the length of the paper you are using. This will be used to tell the system the value for proper paper advancement.

EXAMPLES:

For an 8 ½″ by 11″ sheet of standard paper
6 lines/in. x 11 inches = 66 lines on a sheet

For an 8 ½″ by 14″ sheet of legal size paper
6 lines/in. x 14 inches = 84 lines on a sheet

Maximum Lines First Page: Select how many lines of text you want printed on the first page of the document. (The default value is 55 lines).

Maximum Lines Following Pages: Select how many lines of text you want printed on all of the pages following the first page.

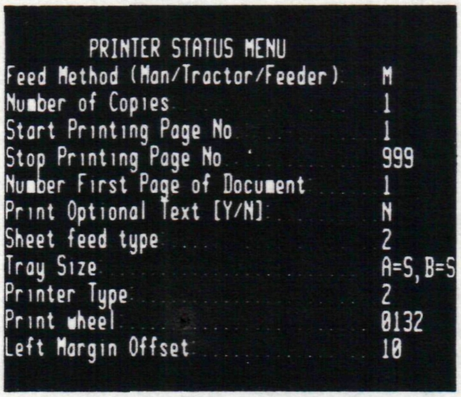
Page Hot Zone: Select the fewest number of lines at which to allow a paragraph division during pagination (widow/orphan). The smallest you can select is 1.

To Make Menu Selections

Instructions:

1. While on the first line of the document, access the First Line Formats Status Menu by pressing CODE + F7.
2. Press F7 once again.
3. Make Status Menu selections for pagination as required.

Automatic Pagination



```
         PRINTER STATUS MENU
Feed Method (Man/Tractor/Feeder).    M
Number of Copies. . . . . . . . .    1
Start Printing Page No . . . . .     1
Stop Printing Page No . . . . . .    999
Number First Page of Document. .     1
Print Optional Text [Y/N]. . . .     N
Sheet feed type . . . . . . . . .    2
Tray Size. . . . . . . . . . . .     A=S,B=S
Printer Type. . . . . . . . . . .    2
Print wheel . . . . . . . . . . .    0132
Left Margin Offset. . . . . . . .    10
```

Using the automatic pagination feature, the system will automatically divide the entire document into individual pages. Temporary page break codes will be placed in the document as dictated by the Maximum Lines First Page, Maximum Lines Following Pages, and Page Hot Zone selections in the Document Status Menu.

To Paginate a Document Automatically

Instructions:

1. Read the document you want to paginate to the screen.
2. Make the appropriate pagination selections in the First Line Formats Menu as previously instructed.
3. RETURN to go back to the document.
4. Move the cursor to the position where you want pagination to begin. This can be at the beginning or middle of a document. Pagination will begin at the first page break preceding the cursor position.
5. Press F7 (Adjust).
6. Press F5 (Automatic Pagination).
7. Choose Create PAGE INDEX (F1) if you want to print just part of the document. Choose Do Not Create PAGE INDEX if the document will be paginated and printed in its entirety.

Note: RESET can be pressed at any time to discontinue automatic pagination.

To Paginate a Document Without Creating a Page Index

Instructions:

1. Read the document you want to paginate to the screen.
2. Make the appropriate pagination selections in the First Line Formats Menu as previously instructed.
3. Press RETURN to go back to the document.
4. Move the cursor to the position where you want pagination to begin. This can be at the beginning or middle of a document. Pagination will begin at the first page break preceding the cursor position.
5. Press F7 (Adjust).
6. Press F5 (Automatic Pagination).
7. Press F2 (Do not create PAGE INDEX).

Note: RESET can be pressed at any time to discontinue automatic pagination.

To Paginate a Document And Create a Page Index:

Instructions:

1. Read the document you want to paginate to the screen.
2. Make the appropriate pagination selections in the First Line Formats Menu as previously instructed.
3. Press RETURN to go back to the document.
4. Position the cursor on page 1 of the document.
5. Press F7 (Adjust).
6. Press F5 (Automatic Pagination).
7. Press F1 (Create PAGE INDEX).

NOTE: Press RESET if you need to discontinue automatic pagination. However, if this is done, the Page Index for that document will be invalid. To ensure that an accurate Page Index is created, you must repaginate the entire document again from page 1.

Interactive Pagination

The interactive pagination method will give you the opportunity to make judgments as to where the page breaks will be inserted in a document. This gives you the ability to decide where to break paragraphs or other portions of text.

With the interactive pagination, the cursor will stop on a line in the text. Then you have the option to move the cursor to another line where you would rather have the page end or select to break the page at this point. You will not, however, be able to go beyond the line number indicated in the Document Status Menu. The cursor will only move to a line number less than what is indicated.

To Interactively Paginate a Document

Instructions:

1. Read the document you want to paginate to the screen.
2. While on the first line of the document, read the First Line Formats Document Status Menu to the screen by pressing CODE + F7, then F7 again.
3. Make the required First Line Status Menu selections as previously instructed.
4. Press RETURN to go back to the document.
5. Move the cursor to page 1 of the document.
6. Press F7 (Adjust).
7. Press F6 (Interactive Pagination). Choose F1 (Create PAGE INDEX) or F2 (Do Not Create PAGE INDEX). The cursor will begin to paginate and stop on the first page at the line you indicated in the Status Menu.
8. A prompt will appear on the screen. (Press ENTER immediately if page break location is acceptable and go to Step 10.) Or, using the Cursor Control Keys, move the cursor to the line where you want the page break to be entered.
9. Press ENTER when the cursor is properly positioned at the place where the page is to be broken.
10. Interactive pagination will continue with the cursor stopping for you to make a decision for each page break. Repeat steps 9-11 to complete the interactive pagination of your document.
11. Store the document as required.

SECTION 6

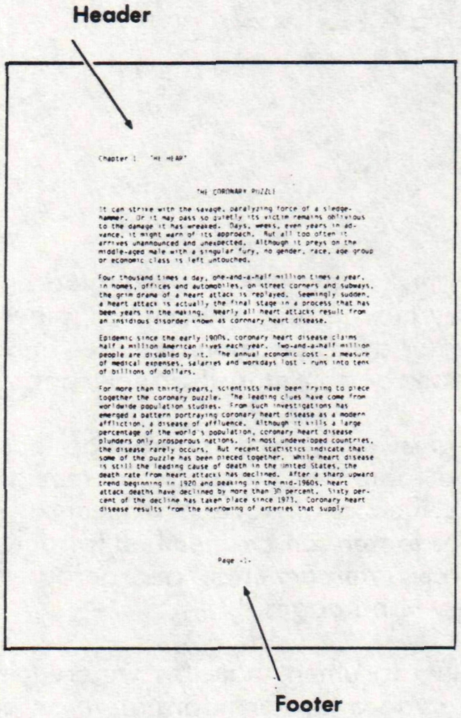
HEADERS, FOOTERS, FOOTNOTES

Headers and footers are segments of text that are repeated on each page of a document. They may include either titles, other descriptive text, a page number or a combination of these. They can also be blank lines for a top and bottom margin on each page.

The header and footer feature gives you several different options for positioning the header and footer. For example, a special header and/or footer can be specified for all pages of a document. Or, if required, a header and/or footer can be specified for only right-hand pages, while an entirely different header and/or footer can be specified for only the left-hand pages.

A footnote is a note placed within a document that cites a reference for a designated part of text or adds further information on a particular item in the text. This can be entered into the text and automatically numbered and positioned by the system.

Headers and Footers



Chapter 1 "THE HEART"

THE CORONARY PUZZLE

It can strike with the savage, paralyzing force of a sledgehammer. Or it may pass so quietly its victim remains oblivious to the damage it has wreaked. Days, weeks, even years in advance, it might warn of its approach. But all too often it arrives unannounced and unexpected. Although it preys on the middle-aged male with a singular fury, no gender, race, age group or economic class is left untouched.

Four thousand times a day, one-and-a-half million times a year, in homes, offices and automobiles, on street corners and subways, the grim drama of a heart attack is replayed. Seemingly sudden, a heart attack is actually the final stage in a process that has been years in the making. Nearly all heart attacks result from an insidious disorder known as coronary heart disease.

Epidemic since the early 1900s, coronary heart disease claims half a million American lives each year. Two-and-a-half million people are disabled by it. The annual economic cost - a measure of medical expenses, salaries and workdays lost - runs into tens of billions of dollars.

For more than thirty years, scientists have been trying to piece together the coronary puzzle. The leading clues have come from worldwide population studies. From such investigations has emerged a pattern portraying coronary heart disease as a modern affliction, a disease of affluence. Although it kills a large percentage of the world's population, coronary heart disease plunders only prosperous nations. In most undeveloped countries, the disease rarely occurs. But recent statistics indicate that some of the puzzle has been pieced together. While heart disease is still the leading cause of death in the United States, the death rate from heart attacks has declined. After a sharp upward trend beginning in 1920 and peaking in the mid-1960s, heart attack deaths have declined by more than 30 percent. Sixty percent of the decline has taken place since 1973. Coronary heart disease results from the narrowing of arteries that supply

Page -1-

A header is the text that is repeated at the top of each page. A footer is text repeated at the bottom of the each page.

With the 500 Series, there are two main format options available for positioning the headers and/or footers within text. They are:

1. **On Each Page**
   - Only headers on each page
   - Only footers on each page
   - Both headers and footers on each page

When making this choice, the headers or footers you store with the document will be included on every page through the end of the document or until you enter another header or footer command.

2. **On Alternating Pages**
   - Alternating headers
   - Alternating footers
   - Both alternating headers and footers

A different header or footer can be specified for the left and right pages of a document. When selecting this method, all *right* headers or footers will be included on all *odd numbered* pages and all left headers or footers will be included on all *even numbered* pages.

Note: Stop codes are not allowed in headers or footers. See Section 7.

Status Menu Selections

The header and/or footer text is included in the total number of lines indicated for the first and following pages in the Document Status Menu. This means that the system will automatically calculate how many text lines should be included in the body of the text when paginating the document. It does this by subtracting the number of lines in the header and/or footer from the selections indicated for the Maximum Lines First Page and Maximum Lines Following Pages in the First Line Formats Document Status Menu.

The system calculates the remaining lines on the page by subtracting the Maximum Lines Per Page (First and Following pages) from the Page Length in Lines value indicated in the Document Status Menu. The remaining blank lines are distributed between the top and bottom margins on a sheet of paper when text is printed. The exact format of these margins will be determined by how the paper is inserted into the printer upon printout.

Example:

If the menu selections are these

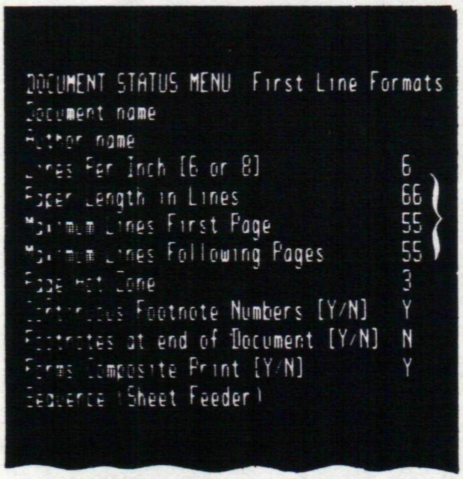
Paper Length in Lines: 66.
Maximum Lines First Page: 55.
Maximum Lines Following Pages: 55.

And the header/footer text totals 8 lines.

Then:

55 lines (maximum lines/page)
-8 lines (header/footer text)
47 lines (actual text lines/page)

66 lines (total page length)
-55 lines (maximum lines/page)
11 lines (available blank lines for top and bottom margins)



```
DOCUMENT STATUS MENU  First Line Formats
Document name
Author name
Lines Per Inch [6 or 8]                6
Paper Length in Lines                 66 }
Maximum Lines First Page              55 }
Maximum Lines Following Pages         55 }
Page Hot Zone                          3
Continuous Footnote Numbers [Y/N]      Y
Footnotes at end of Document [Y/N]     N
Forms Composite Print [Y/N]            Y
Sequence (Sheet Feeder)
```

Once you have determined the format and layout of your page, you must be sure all of the First Line Format Document Status Menu selections are entered correctly before paginating and printing your document with header and/or footer text.

Maximum Lines First Page: Enter the total number of lines of text to be included on the first page. This will include the header and/or footer added to the body of text.

Maximum Lines Following Pages: Enter the total number of lines of text including the header and footer that you want printed on all remaining pages.

Paper Length in Lines: Make this selection for the size of the paper you will be printing the document on. This is calculated by multiplying the number of inches by the number of lines per inch.

Header/Footer Appearance Considerations

1. Determine the appearance of the headers and footers as you type them.
2. Begin headers/footers on any page.
3. Change headers/footers from section to section or chapter to chapter as required.
4. Omit headers/footers from section to section or chapter to chapter as required.
5. Include page numbers in headers or footers. Special codes will automatically sequence the numbers.
6. Type headers and/or footers exactly as you want them to appear. Include RETURNs to separate headers/footers from the top and bottom of the body of text.

Header/Footer Formats

Each header and footer has its own Format Line and Document Status Menus. This will provide the ability to assign a unique format for each header and/or footer for certain format selections. These format changes that can be made should be set immediately prior to typing the header or footer text.

When headers and footers are entered, they automatically assume the format characteristics that are selected on line one of the document. Some of these format values, however, can be modified in the header and/or footer to create a unique format for the header/footer text. The format items that can be individually changed in the header/footer text include the following:

Margins
Pitch
Hot Zone
Justification

These are the *only* format changes that can be made individually for the header and footer text. All other format selections will be determined by those set for the entire document on line 1.

Margins: The left and right margins of the header and footer are set at the same positions as those which are set on line 1 of the document. These margins, however, can be changed to create an individual format for the header and/or footer. This is done by selecting the MARGIN/INDENT function (F5) and setting the margins (Section 5) when creating or editing the individual header/footer text.

If the document margin values on line 1 are changed anytime after the creation of the headers or footers, these headers and footers will *retain* the margin values that they were created with. Margin changes made to a document *do not* affect the format of the header/footers which had previously been entered in the document. Once a header or footer has been created, the only way to alter the margins is to edit the header/footer text by modifying the margin settings using the MARGIN/INDENT (F5) function.

Pitch: The pitch of the header and footer will automatically follow the pitch set in the document prior to the entry of the header and footer text. If pitch changes are made to the document after the header and footer text has been entered, the header and footer will *retain* the pitch values that they were originally created with. The pitch can *only* be altered in the headers and footers by making the appropriate selection in the individual Variable Line Formats Menu for the header and/or footer.

Hot Zone: The hot zone value set for a document will be in effect for the headers and footers. This selection can be changed, however, by making the appropriate hot zone selection in the individual Variable Line Formats Document Status Menu of the header and footer.

Justification: If the justification selection for the header and/or footer is to be different than the entire document, a selection can be made in the Variable Line Formats Document Status Menu for the individual header and/or footer. All general instructions (Section 5) can be followed when making this selection during entry of the header and footer text.

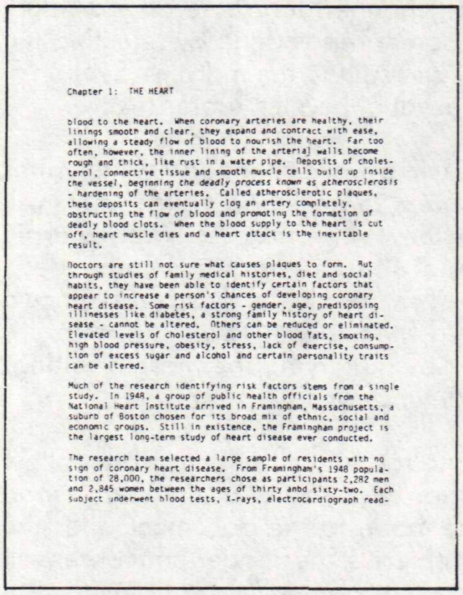
Special Format Restrictions

Lines Per Inch: The lines per inch value in the header and footer will follow the same format value set on the first line of the document. You *cannot* change the lines per inch value once it is established in the header and footer. If the lines per inch value is changed, the existing header and footer must be deleted and *new* headers and footers must be created in order to have the new lines per inch value in the document be reflected in the header/footer text.

Note: If you expect to change the lines per inch in the future, it is a good idea to store the header/footer text as a document, then use the READ Key (See Section 10) to recreate the new header and footer without retyping.

Line Spacing: The line spacing value assigned to the header and footer text is *always* single-spaced, regardless of what other value is selected in the document.

Entering Headers for All Pages



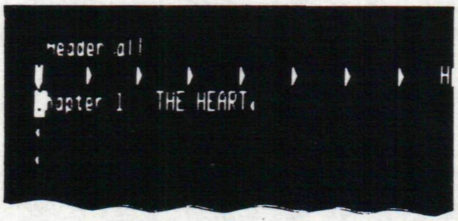
Chapter 1: THE HEART

blood to the heart. When coronary arteries are healthy, their linings smooth and clear, they expand and contract with ease, allowing a steady flow of blood to nourish the heart. Far too often, however, the inner lining of the arterial walls become rough and thick, like rust in a water pipe. Deposits of cholesterol, connective tissue and smooth muscle cells build up inside the vessel, beginning *the deadly process known as atherosclerosis* - hardening of the arteries. Called atherosclerotic plaques, these deposits can eventually clog an artery completely, obstructing the flow of blood and promoting the formation of deadly blood clots. When the blood supply to the heart is cut off, heart muscle dies and a heart attack is the inevitable result.

Doctors are still not sure what causes plaques to form. But through studies of family medical histories, diet and social habits, they have been able to identify certain factors that appear to increase a person's chances of developing coronary heart disease. Some risk factors - gender, age, predisposing illinesses like diabetes, a strong family history of heart disease - cannot be altered. Others can be reduced or eliminated. Elevated levels of cholesterol and other blood fats, smoking, high blood pressure, obesity, stress, lack of exercise, consumption of excess sugar and alcohol and certain personality traits can be altered.

Much of the research identifying risk factors stems from a single study. In 1948, a group of public health officials from the National Heart Institute arrived in Framingham, Massachusetts, a suburb of Boston chosen for its broad mix of ethnic, social and economic groups. Still in existence, the Framingham project is the largest long-term study of heart disease ever conducted.

The research team selected a large sample of residents with no sign of coronary heart disease. From Framingham's 1948 population of 28,000, the researchers chose as participants 2,282 men and 2,845 women between the ages of thirty anbd sixty-two. Each subject underwent blood tests, X-rays, electrocardiograph read-



```
header all
▮    ▶    ▶    ▶    ▶    ▶    ▶    ▶    H
hapter 1   THE HEART◂
◂
◂
```

The header is entered once at the top of the first page. It is printed at the top of every page of the document.

To Enter Headers for All Pages

Instructions:

1. Position the cursor on line 1 of the first page of the document. (This could either be on input or in editing an existing document.)
2. Press F8 (Headers and Footers).
3. Press F8 again (Header on all Pages). The screen will clear for entry of the header text.
4. Type the header text. Include RETURN, at the end of the text to create space between the header and the text upon printout.
5. Paginate the document with the header you just entered (Section 5).
6. STORE to record the header text and return to the document.

Entering Footers for All Pages

The footer is entered once at the top of the first page. It is printed at the bottom of every page of the document.

To Enter a Footer for All Pages

Instructions:

1. Position the cursor before the line where the first footer should start. (This could either be on input or in editing an existing document.)
2. Press F8 (Headers and Footers).
3. Press F11 (Footer on all Pages). The screen will clear for entry of the footer text.
4. Type the footer text including any returns. Remember to leave lines at the beginning of the footer for the space between the footer and the text.
5. Press STORE. The cursor returns to your document. The footer text is automatically stored. It is printed out with your document.
6. Paginate the document with the headers or footers you just entered.

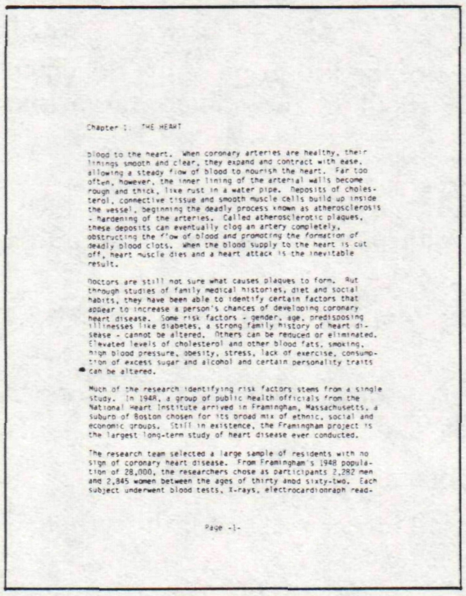
Entering Alternating Header/Footer Text

You can specify a different header or footer for the odd and even numbered pages of a document. The left headers/footers are assigned to all even pages. The right headers/footers are assigned to all odd numbered pages.

To Alternate Headers

Instructions:

1. Position the cursor on line 1 of the first page of the document. (This could either be on input or in editing an existing document.)
2. Press F8 (Headers and Footers).
3. Press F6 (Header Right) if a right header is desired. The screen will clear for entry of the header text.
4. Type the text for the right header including the space between the header and the text.
5. **Press STORE. The cursor will return to the text and the right header will be stored.**
6. Press F8 (Header and Footers).
7. Press F7 (Header Left) if a left header is desired.
8. Type the text for the left header including the space between the header and the text.
9. **Press STORE. The cursor will return to the text and the left header will be stored with the document.**
10. **Paginate the document with the headers you just entered.**



Chapter 1: THE HEART

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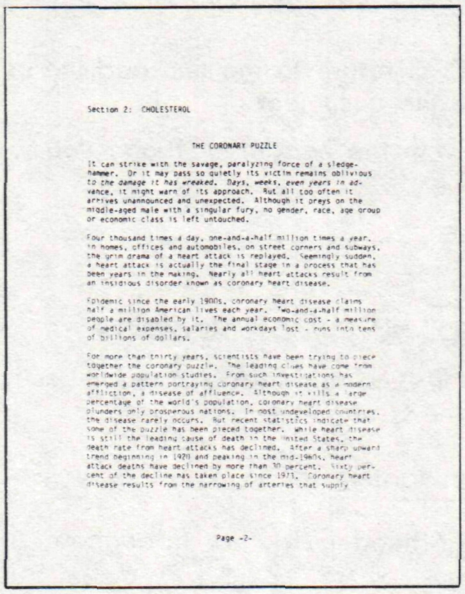


Section 2: CHOLESTEROL

THE CORONARY PUZZLE

It can strike with the savage, paralyzing force of a sledgehammer. Or it may pass so quietly its victim remains oblivious to the damage it has wreaked. Days, weeks, even years in advance, it might warn of its approach. But all too often it arrives unannounced and unexpected. Although it preys on the middle-aged male with a singular fury, no gender, race, age group or economic class is left untouched.

Four thousand times a day, one-and-a-half million times a year, in homes, offices and automobiles, on street corners and subways, the grim drama of a heart attack is replayed. Seemingly sudden, a heart attack is actually the final stage in a process that has been years in the making. Nearly all heart attacks result from an insidious disorder known as coronary heart disease.

Epidemic since the early 1900s, coronary heart disease claims half a million American lives each year. Two-and-a-half million people are disabled by it. The annual economic cost - a measure of medical expenses, salaries and workdays lost - runs into tens of billions of dollars.

For more than thirty years, scientists have been trying to piece together the coronary puzzle. The leading clues have come from worldwide population studies. From such investigations has emerged a pattern portraying coronary heart disease as a modern affliction, a disease of affluence. Although it kills a large percentage of the world's population, coronary heart disease plunders only prosperous nations. In most undeveloped countries, the disease rarely occurs. But recent statistics indicate that some of the puzzle has been pieced together. While heart disease is still the leading cause of death in the United States, the death rate from heart attacks has declined. After a sharp upward trend beginning in 1920 and peaking in the mid-1960s, heart attack deaths have declined by more than 30 percent. Sixty percent of the decline has taken place since 1973. Coronary heart disease results from the narrowing of arteries that supply

Page -2-

To Alternate Footers

Instructions:

1. Position the cursor on line 1 of the first page of the document. (This could either be on input or in editing an existing document.)
2. Press F8 (Headers and Footers).
3. **Press STORE. The cursor will return to the text and the right footer will be stored.**
4. Type the text for the right footer including the space between the footer and the text.
5. Press STORE or ENTER. The cursor will return to the text and the right footer will be stored.
6. Press F8 (Headers and Footers).
7. Press F10 (Footer Left) if a left footer is desired. The screen will clear for entry of the footer text.
8. Type the text for the left footer including the space between the footer and the text.
9. **Press STORE. The cursor will return to the text and the left footer will be stored with the document.**
10. **Paginate the document with the header or footer you just entered (Section 5).**

Special Header/Footer Applications

The Exxon 500 Series offers very versatile format capabilities for header and footer text. With the system you can:

1. Create text without headers/footers on the initial pages.
2. Create text with different headers/footers throughout the document.
3. Create text with no header/footer on a specified page.

Any type of headers or footers (alternating or all pages) can be selected throughout the document as required.

No Header/Footer on Initial Special Page: Header/footer text can be assigned at the page in the document where it is to appear first. For example, if header/footer text is not wanted on the first 10 pages of a document, the header/footer can be inserted so it will not be printed until page 11. This is done by entering the header/footer text on the first line of the page on which it is to appear first.

To Prepare Document with No Header/Footer on the Initial Pages

Instructions:

1. Type the text up to the first line of the page where the header and/or footer is to appear. (The header/footer can also be edited into an existing document.)

   Note: A required page break usually ends a section or chapter, which would indicate the line where the header or footer should begin.

2. Press F8 (Headers and Footers).
3. Select the type of headers (Alternating or All Pages) required for the document (see previous instructions). The screen will clear for entry of the header text.
4. Type the header text.
5. **Press STORE to return to the document. Continue to follow these steps if you want to enter a footer. If no footer is required, go to Step 10 and continue.**
6. Enter footer text by pressing F8 (Headers and Footers).
7. Select the type of footer (alternating or all pages) required for the document (see previous instructions). The screen will clear for entry of the footer text.
8. Type the footer text.
9. **Press STORE to return to the document.**
10. Paginate the entire document with the header/footer text (see Section 5).

    Note: If you want to enter a header/footer on page 2, skipping page 1, paginate the entire document first. This will show you where page 2 will begin. Then, enter the header/footer text on the first line of page 2. After you have entered the header/footer text, repaginate the document.

Different Headers/Footers Within a Document: A document may contain different sections or chapters that require different headers and footers for each one. If this should occur within a document, the headers and footers may be changed as many times as required.

To Change Headers/Footers Within a Document

Instructions:

1. Move the cursor to the first line of the page at which the new headers/footers can begin. This can be either on input or when editing.

   Note: A required page break usually ends a section or chapter, indicating the line at which a new header/footer should begin.

2. Press F8 (Headers and Footers).
3. Select the type of headers (Alternating or All Pages) required for the text at this point. The screen will clear for entry of the header text.
4. Type the header text.
5. **Press STORE to return to the document. Continue to follow these steps if you want to enter a footer. If no footer is needed, go to Step 10 and continue.**
6. Enter footer text by pressing F8 (Headers and Footers).
7. Select the type of footer (Alternating or All Pages) required for the text at this point (see previous instructions). The screen will clear for entry of the footer text.
8. Type the footer text.
9. **Press STORE to return to the document.**
10. If other header/footer changes are required, follow Steps 1-9 again.
11. **When all headers and footers have been entered, paginate the entire document with the header/footer text (see Section 5).**

No Header/Footer on Special Page: A blank header or footer can be assigned to allow the length (as defined by MAX LINES FOLLOWING PAGES value) of the page to be used for text or a chart within a document. For example, if a header is required only on the first 5 pages of a document, an empty header can assigned on page 6 which will cancel the header for the rest of the document or until a new header is assigned.

To Enter a Blank Header/Footer

Instructions:

1. Move the cursor to the line of the page where header/footer is to be canceled. This can be either on input or when editing.

   Note: A required page break usually ends a chapter, or section, or surrounds a chart, indicating the line at which the blank header or footer should be inserted.

2. Press F8 (Headers and Footers).
3. For a blank header, press F8 (Header on all Pages). The blank screen will appear.
4. Immediately press STORE without typing anything.
5. For a blank header, press F8 (Header and Footers). The blank screen will appear.
6. Immediately press STORE without typing anything.
7. Enter any other headers or footer required throughout the document.
8. Paginate the entire document with the headers/footers (see Section 5).

   Special Note: The blank header will actually take up one blank line during pagination, which will be subtracted from the MAXIMUM LINES PER PAGE upon printout.

Editing Header/Footer Text

Every time a header or footer is typed, a format marker is stored with the text indicating all of the header/footer information.

To edit the header or footer, all you have to do is move the cursor to the corresponding format marker for the header or footer you want to edit while in the TRACE MODE. From there, just read the header or footer text to the screen by using the READ Key located on the Screen Keypad. Then, make the necessary changes and restore the header or footer text.

To Edit Header/Footer Text

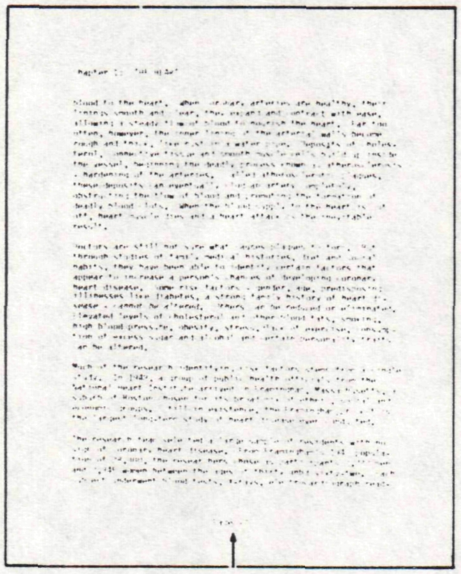
Instructions:

1. Press TRACE.
2. Move the cursor to the format marker representing the header or footer you want to edit (look at the message in the status line to determine the correct one).
3. **Press the READ Key located on the Screen Keypad.**

   Note: If you want to delete the header or footer, press CHAR OUT *before* reading the text to the screen.
4. The header or footer will appear on the screen. Make the necessary editing changes.
5. **Press STORE and the newly edited version of the header to footer will be stored with the text.**
6. Repaginate the document with the new changes you have made in the header and/or footer.

   REMEMBER to restore the entire document when you are finished.

Page Numbering



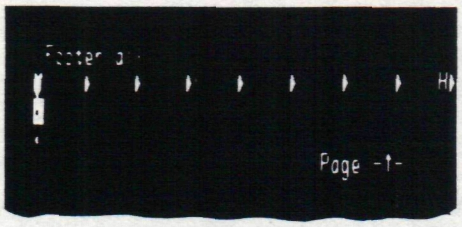
The 500 Series offers you the ability to number pages automatically.

Page numbers may be accompanied with words, symbols or spaces, and begin on the page you choose. The first number printed can also be any number you select so you can number only one page or print any range of pages.

To initiate page numbering, enter a special page number code in either the header or footer text. When typing the header to footer, enter the page number code at the position where you want the number to appear when the document is printed.

When you are ready to print the text that contains page numbers, a Printer Status Menu selection must be made to indicate the appropriate page number value to be printed with the document. A description of this Printer Status selection is given for your information.

Number First Page of Document: This defines the number that will be printed when the first page number code is encountered. Typically, this value is 1 (default), unless a specific section or range of pages in a document is to be printed or no page numbering is to appear on the initial pages of a document.



Footer a

Page -↑-

To Enter a Page Number Code

Instructions:

1. While entering or editing the header or footer text, move the cursor to the position where you want the numbering to be placed.
2. **Type any words, symbols or spaces you might want to come before the number, such as Page, Pg., -P.**
3. Press CODE + 3. A page number symbol (↑) will appear on the screen.
4. Type any characters or symbols to appear after the page number.
5. **Finish entering your header or footer, then press STORE to return to your document.**

To Print a Document with Page Numbers

Instructions:

1. Before beginning to print, display the Printer Status Menu by pressing CODE + F7, then press F8.
2. Select the value for page numbering:

   Number First Page of Document
3. **RETURN to delete the menu from the screen.**
4. Print the document. (Refer to Section 7.)

Special Page Numbering Formats

No Page Numbering on Beginning Pages: For some documents, the first page or pages must not have page numbers printed on them. A special menu selection is needed before the page number code is inserted on the appropriate page.

To Begin Page Numbering on a Later Page

Instructions:

1. Enter the header and footer on the first page that it is to appear (see previous instructions) *without* including any page numbering code.
2. Move the cursor to the top of the page where the page numbering is to begin.
3. Enter a header or footer again, including the page number code (CODE + 3) at the appropriate position.
4. Immediately before printing the document, read the Printer Status Menu to the screen by pressing CODE + F7, then press F8.
5. Move the cursor to the NUMBER FIRST PAGE OF DOCUMENT selection.
6. Enter the page number to appear on the first page where the page number code appears.
7. ENTER to set this value.
8. RETURN.
9. Print the document (see Section 7).

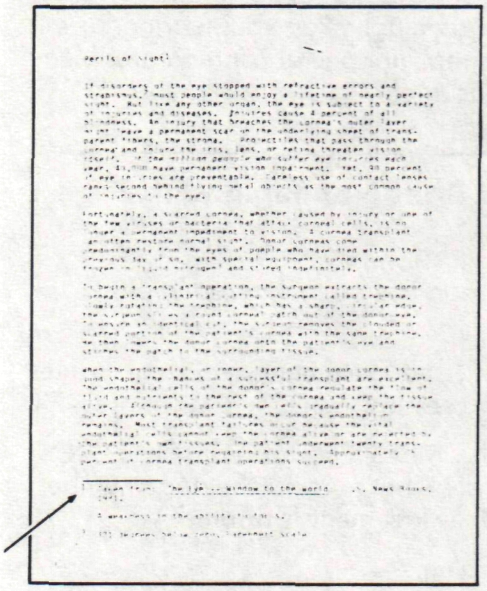
Printing a Document Which Does Not Begin With Page 1: An individual document may contain text that does not begin with page 1, and thus must be numbered accordingly. Page numbering for this type of document can be done by making special Printer Status Menu selections before printing the document.

To Print a Document Which Does Not Begin With Page 1

Instructions:

1. Be sure the page number code has been entered in either the header or footer.
2. Immediately before printing the document, read the Printer Status menu to the screen by pressing CODE + F7, then press F8.
3. Move the cursor to the "NUMBER FIRST PAGE OF DOCUMENT" selection and indicate what number the page numbering is to begin with when the document is printed.
4. Press ENTER to enter this value.
5. Press RETURN to clear the screen.
6. Print the document (see Section 7).

Footnotes



Footnotes are notes placed within text to cite a reference or add additional information on a particular topic. You need only footnote the text as you are typing, then make the appropriate Document Status selections and paginate. The system will automatically number and position the footnotes depending on your selection when the document is printed.

There are three options given for formatting footnotes when printing the document:

1. Footnotes numbered consecutively throughout the document and appearing at the bottom of the appropriate pages.
2. Footnotes numbered consecutively throughout the document and appearing at the end of the entire document.
3. Footnotes numbered so the first one on each page is *always* number 1 and it appears on the bottom of the page where the footnote appears. Additional footnotes on the same page are numbered consecutively.

When printing a document with footnotes, the footnote number will appear superscripted in the document and the corresponding footnote text will be formatted according to your selection. If the footnote appears at the bottom of the page and is too long to fit, the remainder will be printed on the following page.

Footnote Formats

Each footnote has its own format line and Document Status Menus. Format changes should be set prior to typing the footnote text.

When footnotes are entered, the left margin is automatically indented four spaces from position one, and the footnote assumes the Variable Line Format values that are active at that time. (See "Margins" on the following page for special considerations.)

All of the Variable Line Format values (except Line Spacing which is always single spaced) can be modified in the footnote to create a unique format for the footnote text. The following format values can be individually changed in the footnote:

Pitch
Hot Zone
Justification
Bold Shadow or Multi-Hit
No. of Hits for Multi-Hit
Super/Sub Offset
Overstrike Character

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Margins: The left and right margins of the footnote are set at the same positions as those set on line 1 of the document. These margins, however, can be changed to create an individual format for the footnote by selecting the MARGIN/INDENT function (F5) and setting the margins (Section 5) when creating or editing the footnote text.

The footnote margin settings remain in effect even if the document format is changed. The only way to alter footnote margins is to edit the footnote text by modifying the margin settings using the MARGIN/INDENT (F5) function.

Pitch: The pitch of the footnote will automatically follow the pitch set in the document prior to the entry of the footnote text. If pitch changes are made to the document after the footnote text has been entered, the footnote will *retain* the pitch value that it was originally created with. The pitch can *only* be altered in the footnote by making the appropriate selection in the individual Variable Line Formats Menu for the footnote.

Hot Zone: The hot zone value set for a document will be in effect for the footnote. This selection can be changed, however, by making the appropriate hot zone selection in the individual Variable Line Formats Document Status Menu for the footnote.

Justification: If the justification selection for the footnote is to be different than the entire document, a selection can be made in the Variable Line Formats Document Status Menu for the individual footnote. All general instructions (Section 5) can be followed when making this selection during entry of the footnote.

Note: Stop codes are not allowed in footnotes. (See Section 7.)

Special Format Restrictions

Lines Per Inch: The lines per inch value in footnote will follow the same format value set on the first line of the document. You *cannot* change the lines per inch value once it is established in the footnote. If the lines per inch value is changed, the existing footnote must be deleted and *new* footnotes must be created in order to have the new lines per inch value in the document be reflected in the footnote text.

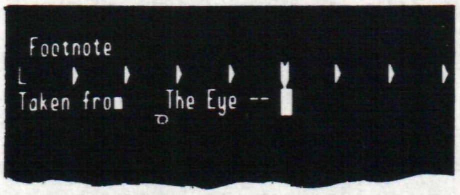
Note: If you expect to change the lines per inch in the future, it is a good idea to store the footnote text as a document, then use the READ Key (See Section 10) to recreate the new footnote without retyping.

Line Spacing: The line spacing value assigned to the footnote text is *always* single-spaced, regardless of what other value is selected in the document.

To Enter a Footnote

Instructions:

1. Type the text to be footnoted.
2. Press F8 (Headers/Footers/Footnotes).
3. Press F5 (Footnote).
4. The screen will go blank for you to type the footnote information and the word "footnote" will appear in the upper left corner of the screen.
5. Press STORE or ENTER. The footnote will be stored and the document will return to the screen for you to continue entering text. A merge marker appears when the footnote was entered. The footnote number will appear superscripted when it appears in the text when printed.
6. Repeat Steps 1-5 for all additional text to be footnoted.
7. Set the First Line Format Document Status Menu selections. (See following instructions.)
8. Paginate the document including the footnotes you have entered (see Section 5).
9. Store the document.
10. Print the document when required (see Section 7).



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Footnote
Taken from  The Eye --
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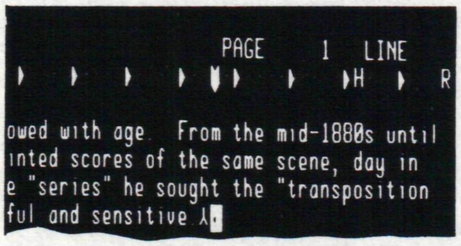

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                  PAGE    1  LINE
owed with age  From the mid-1880s until
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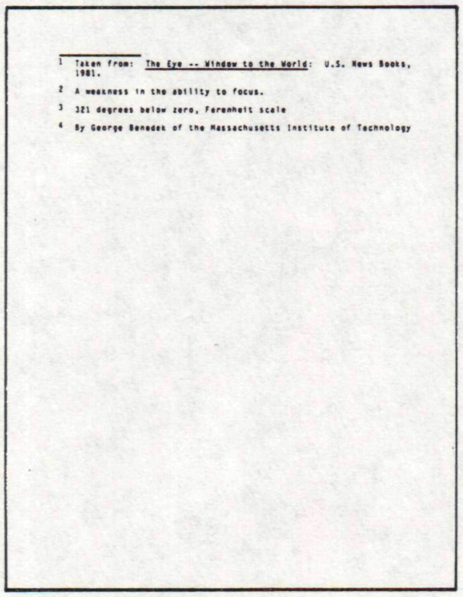

[1] Taken from: The Eye -- Window to the World: U.S. News Books, 1981.

[2] A weakness in the ability to focus.

[3] 321 degrees below zero, Ferenheit scale

[4] By George Benedek of the Massachusetts Institute of Technology

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Margins: The left margin of the footnote is automatically indented four spaces from character position one. However, if the document's left margin is not at character position one, you must set the same left margin in the footnote. For example, if the document's left margin is 10, you should set a left margin of 10 in the footnote also. The system will then automatically indent the footnote text four spaces from character position 10 (the left margin).

To make the footnote's left margin equal the document's left margin:

- Place the cursor on Line 1 of the footnote. Move the cursor to the character position the document's left margin is set at.
- Press CODE + F5, F5, RESET.

Note: *Documents that contain footnotes but were created with* software that was distributed before the 2.4.4 software, must be recalled to the screen and re-adjusted (F7 + F7). This will ensure that the footnote text is indented only four spaces. If you do not re-adjust these documents, the footnote text will not be aligned properly upon printout.

Pitch: The pitch of a footnote will automatically follow whatever pitch is active at the time you create the footnote. If your footnote is to be printed out in a pitch other than 10 pitch, you must reset the pitch on line 1 of the footnote.

Hot Zone: The hot zone value set for a document will be in effect for the footnote. This selection can be changed, however, by making the appropriate hot zone selection in the individual Variable Line Formats Document Status Menu for the footnote.

Justification: If the justification selection for the footnote is to be different than the entire document, a selection can be made in the Variable Line Formats Document Status Menu for the individual footnote. All general instructions (Section 5) can be followed when making this selection during entry of the footnote.

Note: Stop codes are not allowed in footnotes. (See Section 7.)

Special Format Restrictions

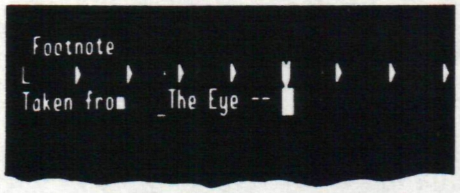
Lines Per Inch: The lines per inch value in footnote will follow the same format value set on the first line of the document.

Line Spacing: The line spacing value assigned to the footnote text is *always* single-spaced, regardless of what other value is selected in the document.

To Enter a Footnote

Instructions:

1. Type the text to be footnoted.
2. Press F8 (Headers/Footers/Footnotes).
3. Press F5 (Footnote).
4. The screen will go blank for you to type the footnote information and the word "footnote" will appear in the upper left corner of the screen.
5. Press STORE. The footnote will be stored and the document will return to the screen for you to continue entering text. A merge marker appears when the footnote was entered. The footnote number will appear superscripted when it appears in the text when printed.
6. Repeat Steps 1-5 for all additional text to be footnoted.
7. Set the First Line Formats Document Status Menu selections. (See following instructions.)
8. Paginate the document including the footnotes you have entered (see Section 5).
9. Store the document.
10. Print the document when required (see Section 7).



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Footnote
L
Taken from   The Eye --
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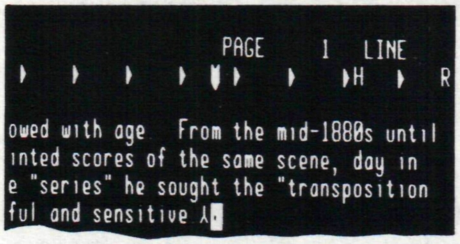

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                    PAGE     1   LINE
                                      H        R

owed with age  From the mid-1880s until
inted scores of the same scene, day in
e "series" he sought the "transposition
ful and sensitive y
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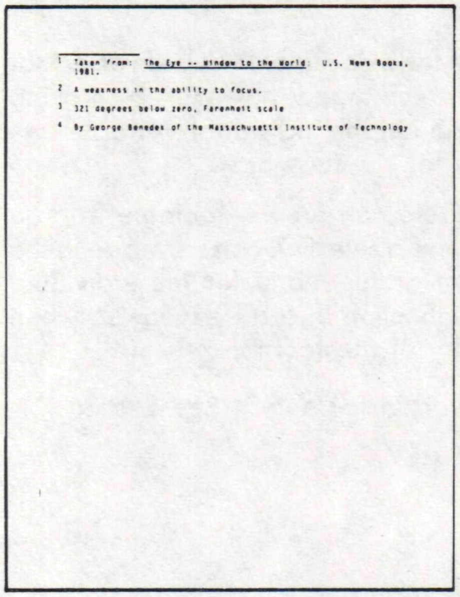


[1] Taken from: The Eye -- Window to the World: U.S. News Books, 1981.

[2] A weakness in the ability to focus.

[3] 321 degrees below zero, Farenheit scale

[4] By George Benedek of the Massachusetts Institute of Technology

Setting Document Status Menu Selections

Before paginating a document that contains footnotes, several document status selections must be made to indicate how the footnotes will be included in the document.

To Set Document Status Menu Selections

Instructions:

1. On the first line of the document, read the First Line Formats Document Status Menu to the screen by pressing CODE + F7, then press F7 again.
2. Answer the First Line Formats Document Status Menu questions relating to footnotes; press ENTER after each selection:

   Continuous Footnote numbers [Y/N]: Make a selection whether you want the footnote numbers to be continuous and numbered consecutively (answer Y), or if you want the first footnote on each page to begin with 1 (answer N).

   Footnotes at End of Document [Y/N]: You have the option to have the footnotes printed on each page (answer N) or at the end of the document (answer Y).

   Note: These two selections must not contradict each other.
3. Press RETURN to go back to the document.
4. Paginate the entire document (see Section 5).
5. Store the entire document, including the footnotes and new Document Status Menu selections.

Editing Footnote Text

Each time footnote text is typed, a format marker is stored with the text indicating all of the footnote information.

To edit the footnote text, press the TRACE key to enter the TRACE MODE and move the cursor to the corresponding format marker for the footnote you want to edit. Then, just read the footnote text to the screen, make the necessary revisions, and restore.

To Edit Footnotes

Instructions:

1. Press the TRACE key to enter the TRACE MODE.
2. Move the cursor to the format marker representing the footnote you want to edit.
3. When the cursor is positioned on the format marker, press the READ key located on the Screen Keypad.
4. The footnote text will appear on the screen. Make the necessary corrections.
5. Press STORE and the newly edited version of the footnote will be stored with the text.
6. Paginate the document again with the new footnote text.

To Delete a Footnote

Instructions:

1. Press the TRACE key to enter the TRACE MODE.
2. Move the cursor to the format marker representing the footnote you want to delete.
3. Press CHAR OUT (DEL CHAR on some keyboards) to delete the footnote.

Special Note: If a section of text with continuously numbered footnotes is to be printed, the text should be printed by specifying the range of pages to be printed so that the footnote numbering will be correct. If the section is printed using the PRINT BLOCK method, numbering will *not* be correct.

SECTION 7
PRINTING

The 500 Series printer is designed to give you excellent document quality. This 35 cps bidirectional printer offers you ease of operation and maintenance with its system indicator and easy access to ribbon and printwheels. The daisywheel design allows for printing in a variety of different typestyles using the many interchangeable printwheels that are available.

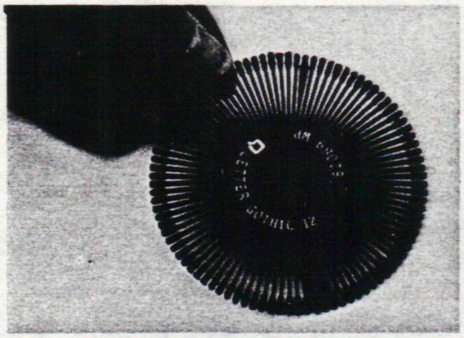
This section explains how to prepare for printing text, and how to use the system features that affect printing. Also described is how to change the printwheels and ribbon cartridges.

Printer Components

Many of the components on the printer are the same as those on a regular typewriter and are located in the same places. The other unique components are specially positioned for easy access.

Printwheel

Printwheels for the 500 Series provide 96 printable characters (letters, numbers, and symbols). A variety of typestyles are available in 10 pitch, 12 pitch, 15 pitch, and proportional spacing.



Printwheel

Ribbon Cartridge

Each multi-strike ribbon cartridge contains enough carbon ribbon to print about 370,000 characters.

Platen

As on a standard typewriter, the platen supports the paper during printing.

Platen Knob

The platen knob, located on the right side of the printer, is used to roll the paper into the printer and to make manual adjustments in the paper position.

Multi-copy Selector

This is used when printing multiple copies (carbon sets). When printing single copies, the lever should be completely forward.

Paper Bail

The Paper Bail holds the paper against the platen.

Paper Bail Release

This is used to position the Paper Bail against or away from the platen.

Card Guide

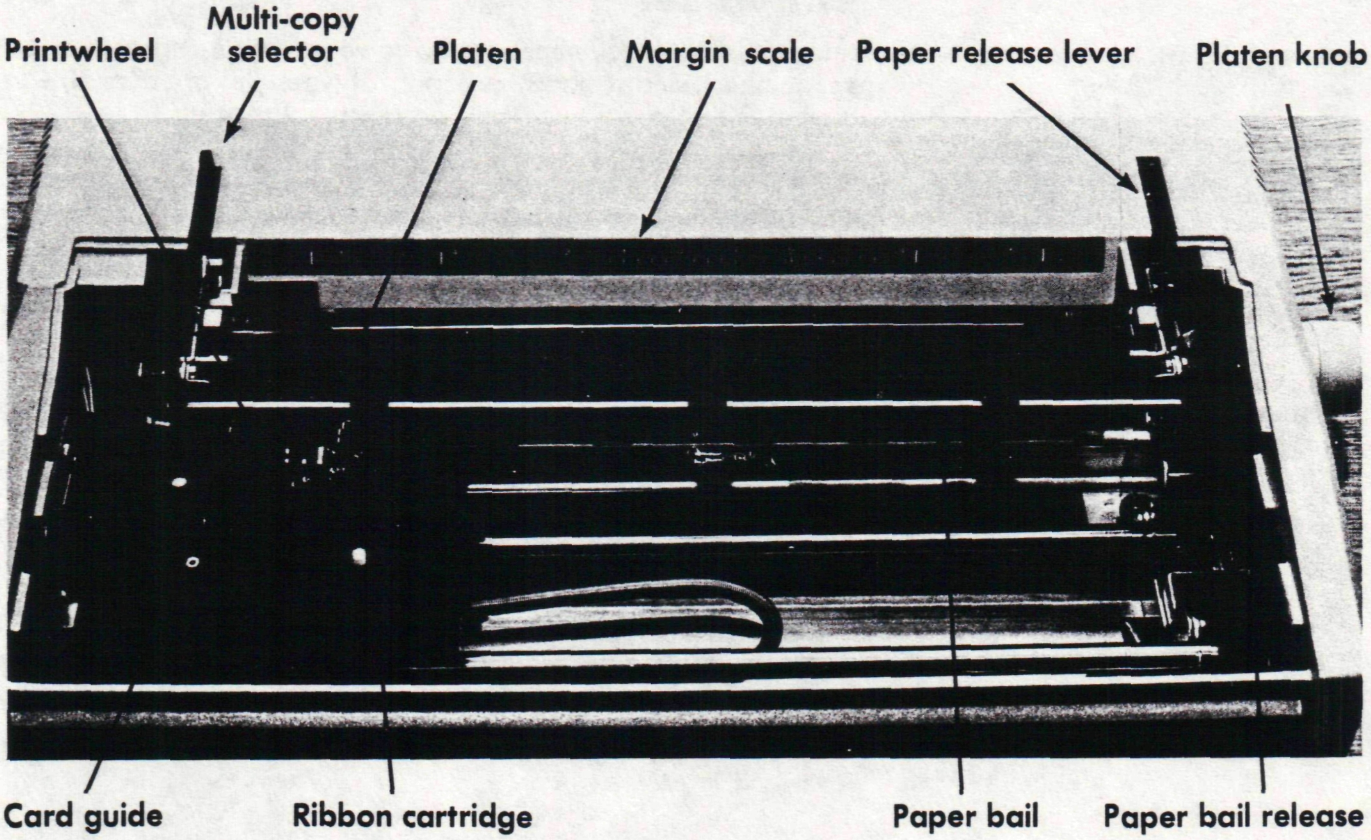
This is used to support small sheets, such as labels or cards, in position for printing.

Paper Release Lever

This releases pressure from the platen so paper can be pulled out of the printer without tearing.

Margin Scale

This is used to appropriately align and insert paper into the printer according to the margins required.


Printwheel
Multi-copy selector
Platen
Margin scale
Paper release lever
Platen knob
Card guide
Ribbon cartridge
Paper bail
Paper bail release

Printer Controls and Indicators

On/Off Switch

The printer ON/OFF switch is located in the back of the printer on the lower right-hand side. It is used to turn the printer power on and off as required. The printer power should be turned on and off in conjunction with the main system.

When the printer is turned on, the green power indicator light will go on.

Power Indicator Light

The power indicator light, located in the lower right-hand corner of the printer, serves several purposes.

Light On: Indicates printer power is on.

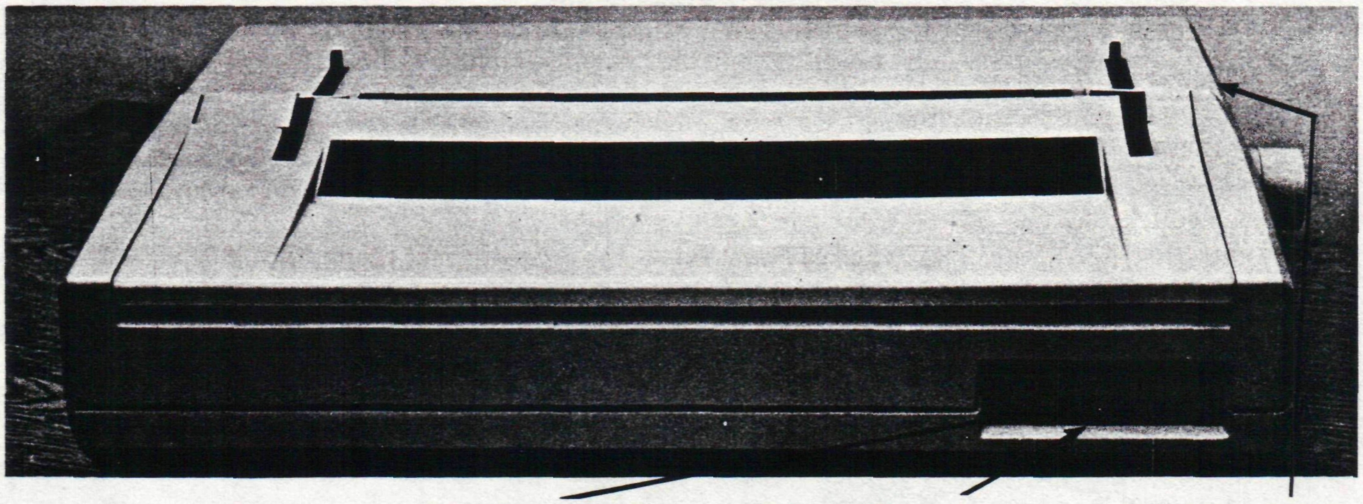
Blinking Light: Indicates printer problem such as:

- The ribbon has run out.
- The printer cover is not on.

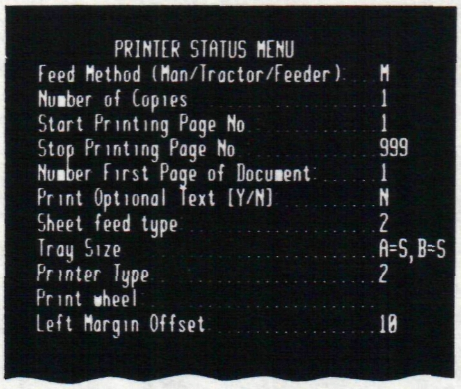
The light will continue to blink and the printer will not function until the problem is corrected.

Top of Form Button

The top of form button, located to the right of the power indicator light, is used to advance a sheet of paper from the printer. Pressing the rectangular drawing on the front of the printer ejects a single sheet of paper or advances continuous forms paper to the top of the next sheet.



The Printer Status Menu



```
          PRINTER STATUS MENU
Feed Method (Man/Tractor/Feeder):...M
Number of Copies....................1
Start Printing Page No..............1
Stop Printing Page No...............999
Number First Page of Document:......1
Print Optional Text [Y/N]...........N
Sheet feed type.....................2
Tray Size...........................A=S,B=S
Printer Type........................2
Print wheel.........................
Left Margin Offset..................10
```

A special menu, called the Printer Status Menu is available to select print methods and formats for text before printing. When the software is loaded, a default Printer Status Menu is in effect until you change it. Unless the Printer Status default values are changed, any selections different from these values must be made *each* time text is printed. The menu will automatically return to the default values after *every* printing since the Printer Status Menu is *not* stored with each individual document.

The Menu Selections

A description of each of the selections are listed below:

Feed Methods (Manual/Tractor/Feeder)

The feed method to be used on the printer must be selected. Each selection is made as follows:

- *Manual (M):* Each sheet of paper will be manually inserted for each page of text. This is the default value.
- *Tractor (T):* A tractor feeder will be attached to the printer so continuous paper can be used.
- *Feeder (F):* An automatic sheet feeder is attached to the printer so each sheet will be fed in automatically.

Number of Copies: Gives you the ability to select the number of copies of the entire collated document to be printed. The default value is 1.

Start Printing Page Number: This is the number of the first page to be printed. This is used for printing a certain section of text within a document. The default number is 1.

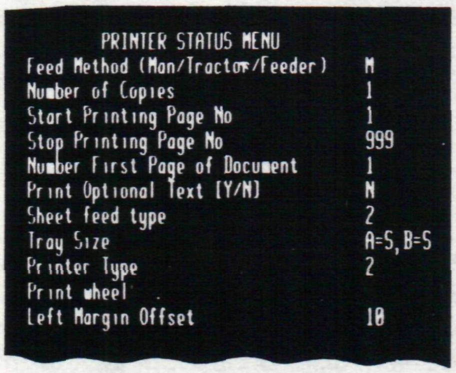
Stop Printing Page Number: The number of the last page to be *printed for a section of text within a document. The default value* which allows you to print the entire document is 999.

Number First Page of Document: Selects the page number to be printed where the first page number code appears The default value is 1.

Print Optional Text [Y/N]: Selection as to whether or not optional text will be printed in the document. The default value is "N."

Sheet Feed Type: The type of sheet feeder that is attached to the printer. The default value is 2.

Tray Size: The size of the trays which are used in the sheet feeder (i.e. legal, wide, standard, etc.). The default value is A = S, B = S which indicates standard size trays.



```
        PRINTER STATUS MENU
Feed Method (Man/Tractor/Feeder)     M
Number of Copies                     1
Start Printing Page No               1
Stop Printing Page No                999
Number First Page of Document        1
Print Optional Text [Y/N]            N
Sheet feed type                      2
Tray Size                            A=S,B=S
Printer Type                         2
Print wheel
Left Margin Offset                   10
```

Printer Type: Defines the type of printer that is attached to the system. The default value is 2, which is the setting for a 35 CPS printer with one indicator light on the front panel. Some printers require different defaults for this setting. If your printer has one indicator light and is a 50 CPS printer, change the default to 3. If your printer has two indicator lights on the front panel, change the default to 4 for a 35 CPS printer, 5 for a 50 CPS printer. If you have a 40 CPS (wide) printer, change the default to 6.

Printwheel: If using an alternate printwheel or an extended character printwheel, the printwheel identification number must be entered in the menu. A chart listing the available printwheel numbers and specific printwheel information is located in Appendix D. The default value is 0126 which represents a standard word processing printwheel.

Left Margin Offset: The selection for the distance, in number of character spaces that will be added to the left margin in the document. The default value is 10 spaces. The pitch of these spaces is determined by the PITCH set on Line 1 of the document. This means that the offset is not affected by pitch changes made within the body of the text.

Using the Printer Status Menu

The Printer Status Menu is accessed before printing if any special selections other than the default values must be made. It is displayed on the screen and selections are made if necessary. After the document has been printed, the selections return to the standard default settings and new entries must be made before printing when changes are again required. These default values can be changed if necessary. This procedure is explained in Section 7.

To Access the Printer Status Menu

Instructions:

1. Directly before preparing to print, press CODE + F7.
2. Press F8 to select the Printer Status Menu.
3. The Printer Status Menu will appear on the screen for you to view or make changes. Press RETURN to go back to your document.

To Change the Printer Status Menu Selections

Instructions:

1. After selecting the Printer Status Menu, use the Cursor Control Keys to move to the selection you wish to make.
2. Type your new entry.
   Note: If you make an error in typing, press BACKSPACE to clear the error, then correctly retype the selection.
3. Press ENTER to record your answer in the menu.
   Note: The system will go back to the default value if you enter an unacceptable answer.
4. Use the Cursor Control Key to move to your next selection.
5. Press RETURN to go back to your document.

Standard Printing Procedures

Documents can be printed in a variety of ways on the 500 Series. One method is to select to print a document from the Index, then continue to work on either inputting or editing other text while the document is printing. This is called background printing. Up to 5 documents can be given the print command at one time to be continuously printed in the background.

Foreground printing capabilities are also available to print text directly from the display screen when required.

Paper Insertion

The feed method you select in the Printer Status Menu will determine how paper is inserted when printing a document. If the manual method (M) is selected, a sheet of paper must be manually inserted before each page is printed. With the continuous forms tractor method (T) and sheet feeder method (F), paper will automatically be inserted.

Specific instructions for using the sheet feeder and tractor feeder will accompany those optional products.

To Manually Insert a Sheet of Paper

Instructions:

1. Pull the Paper Bail Release forward so the paper bail is away from the platen.
2. Place the paper behind the platen. Align the left edge of the paper with the farthest line to the left on the margin scale.

   Note: The metal paper guide on the printer can be moved over to align with the left margin edge on the margin scale. This guide allows you to insert the paper evenly.
3. Roll the paper in using the Platen Knob, located on the right side of the printer.
4. Push the Paper Bail Release back so the Paper Bail is now resting on top of the sheet of paper. If the paper is not inserted far enough into the printer to reach the paper bail, keep it pulled forward until printing begins. This will help to avoid a paper jam until the paper advances.

Printing Documents From the Index (Background)

After a document has been stored, it can be printed directly from the Index without reading the text to the display screen. This makes efficient use of the system's capabilities by allowing you to work on other things while a document is printing. You can select up to 5 documents to be printed from the Index. This is called queuing. When queuing documents, each document you have selected will be consecutively printed.

To Print a Single Document (Background Printing)

Instructions:

1. Be sure the Printer Status Menu selections have been made.
2. Press F1 (Index Operations).
3. Using the Cursor Control Keys, move the cursor to the document to be printed. (Use CODE + DOWN ARROW or CODE + UP ARROW to move to various pages of the Index.)
4. Press F7 (Print Doc).
5. If the manual feed method is selected, insert a sheet of paper into the printer and press ACK (CODE + MSGS).
6. The printing will begin. Each time a page of text is printed, the printer will pause to allow time to insert another sheet of paper for the next page of text when the manual feed method is selected. Press ACK (CODE + MSGS) to continue the printing.
7. You can continue on with your other work on the screen while the text is printing.

To Queue Documents for Printing from the Index

Instructions:

1. Be sure the appropriate Printer Status Menu selections have been made.
2. Press F1 (Index Operations).
3. Using the Cursor Control Keys, move the cursor to the first document to be printed. The cursor should be on the document name to be printed.
4. Press F7 (Print Doc).
5. If the manual feed method is selected, insert a sheet of paper into the printer and press ACK (CODE + MSGS).
6. Move the cursor to the next document to be printed.
7. Press F7 (Print Doc).
8. Continue to select up to 3 more documents to be printed by moving the cursor to the document name and pressing F7. Insert paper and press ACK (CODE + MSGS) as required by the special prompt at the top of the screen if manually feeding paper.

Printing Portions of Text

Sections of a document can be printed in foreground or background if necessary. Two methods can be used.

- Printing a designated block of text (foreground).
- Printing a section of a document (background).

Printing a Block of Text: There may be times when you want to print only a designated amount of text. This can be done by using the Block Print feature.

To Print a Block of Text

Instructions:

1. Be sure the appropriate Printer Status Menu selections have been made.
2. Press F4 (Block Operations).
3. Place the cursor on the first character of the block.
4. ENTER
5. Place the cursor *after* the last character of the block.

   Note: If the last character of the block is a RETURN, position the cursor at the left margin of the line after the RETURN.
6. ENTER
7. Press F1 to print the block of text.
8. If the manual feed method is selected, insert a sheet of paper *into the printer and* RETURN.

   Note: When printing selected pages with footnotes, headers or footers, use the print menu with start & stop pages from the Index rather than Print Block.

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Printing a Section of a Document: If a change is made on only a portion of a document, it may be necessary to print only the changed section or a single page. This can be done easily by making special selections in the Printer Status Menu. The pages you wish to print will be indicated by entering the page number of the starting page and the page number of the last page to be printed.

If page numbering is included on the page, an indication of the starting page number must be selected in the menu also.

To Print a Section of Text

Instructions:

1. Access the Printer Status Menu by first pressing CODE + F7.
2. Press F8 to select the Printer Status Menu. The menu will appear on the screen.
3. Use the cursor down keys to move to the "START PRINTING PAGE NUMBER" selection and enter the starting page number.
4. Type the number of the first page to be printed and press ENTER.
5. Move the cursor to the "STOP PRINTING PAGE NUMBER," make the selection to indicate what page at which to stop printing, and then press ENTER.
6. If required, enter the page number to be placed on the first page that requires a page number (see Section 6).
7. Press RETURN to go back to the screen.
8. Press F1 to access the Index.
9. Move the cursor to the document you want to print and press F7 (Print Doc).
10. If using the manual feed method, insert a sheet of paper into the printer and press RETURN.

Printing Portions of Text

Sections of a document can be printed in foreground or background if necessary. Two methods can be used.

- Printing a designated block of text (foreground).
- Printing a range of pages within a document (background or foreground).

Printing a Block of Text: There may be times when you want to print only a designated amount of text. This can be done by using the Block Print feature.

To Print a Block of Text

Instructions:

1. Be sure the appropriate Printer Status Menu selections have been made.
2. Press F4 (Block Operations).
3. Place the cursor on the first character of the block.
4. ENTER
5. Place the cursor *after* the last character of the block.

   Note: If the last character of the block is a RETURN, position the cursor at the left margin of the line after the RETURN.
6. ENTER
7. Press F1 to print the block of text.
8. If the manual feed method is selected, insert a sheet of paper into the printer and press CODE + MSGS (ACK).

   Note: When printing selected pages with footnotes, headers or footers, use the print menu with start & stop pages rather than Print Block.

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Printing a Section of a Document: If a change is made on only a portion of a document, it may be necessary to print only the changed section or a single page. This can be done easily by making special selections in the Printer Status Menu. The pages you wish to print will be indicated by entering the page number of the starting page and the page number of the last page to be printed.

If page numbering is included on the page, an indication of the starting page number must be selected in the menu also.

To Print a Section of Text

Instructions:

To speed up the process of printing a section of a document, paginate the document and create a Page Index prior to following this procedure. (See page 5/22 — To Paginate a Document and Create a Page Index.)

1. Access the Printer Status Menu by first pressing CODE + F7.
2. Press F8 to select the Printer Status Menu. The menu will appear on the screen.
3. Use the cursor down keys to move to the "START PRINTING PAGE NUMBER" selection and enter the starting page number.
4. Type the number of the first page to be printed and press ENTER.
5. Move the cursor to the "STOP PRINTING PAGE NUMBER," make the selection to indicate what page at which to stop printing, and then press ENTER.
6. If required, enter the page number to be placed on the first page that requires a page number (see Section 6).
7. Press RETURN to go back to the screen.
8. Press F1 to access the Index.
9. Move the cursor to the document you want to print and press F7 (Print Doc).
10. If using the manual feed method, insert a sheet of paper into the printer and press ACK (CODE + MSGS).

Printing from the Screen: The PRINT SCRN Key (PRINT on some keyboards) is located on the Screen/Numeric Keypad. When pressed, the entire document which appears on the screen will print out.

To Print Text Using the PRINT SCRN Key

Instructions:

1. Be sure the appropriate Printer Status Menu selections have been made.
2. Press PRINT SCRN (PRINT on some keyboards).
3. Insert a sheet of paper into the printer and then press ACK (CODE + MSGS). The text will begin printing immediately.

Stopping Printing

If you wish to discontinue the printing function at any time, you can do this by pressing the STOP PRINT key. This key is located on the Screen/Numeric Keypad. When this key is pressed, all printing will be discontinued and stop immediately after emptying out the remaining text in the printer buffer. If several documents have been queued to the printer and STOP PRINT is pressed, the document which was being printed at the time the button was pressed will be discontinued. The remaining documents, however, will still be printed.

Special Printing Applications

Printing the Index

For your records, you may want to print a copy of the Index as a listing of all of the documents you have recorded on your disk.

To Print the Index

Instructions:

1. Press CODE + F7, then F8 to access the Printer Status Menu.
2. Set the Left Margin Offset to 0 as the Index requires an 80 space line in 10 pitch.
3. If the manual feed method is selected, insert a sheet of paper in the printer.
4. Press F1 (Index Operations) to display the Index on the screen.
5. Press F2 (Print Index). A copy of the Index will be printed for your files.
6. **If using the manual feed method and printing stops before the entire Index is printed, insert another sheet of paper in the printer and press ACK (CODE + MSGS) to resume printing.**

Printing an Envelope

Because of the envelope size, a special left margin selection must be made before printing an envelope. These particular instructions can be used if the Left margin on the screen is set to 1 and the Left margin of the envelope is aligned at printer position 1.

To Print an Envelope

Instructions:

1. Display the Printer Status Menu by pressing CODE + F7, then F8.
2. Move the cursor down with the Cursor Control Key to change the Left Margin Offset to 40.
3. Press ENTER to enter the new value.
4. Press RETURN to move back to the blank screen.
5. Type the name and address at the left-hand margin.
6. Press PRNT SCRN (PRINT on some keyboards).
7. If using the manual feed method, insert an envelope into the printer and press ACK (CODE + MSGS).
8. Delete the screen and perform steps 1-7 to print another envelope.

   Note: Envelopes may also be printed using the Direct Typewriter Mode or Print Block.

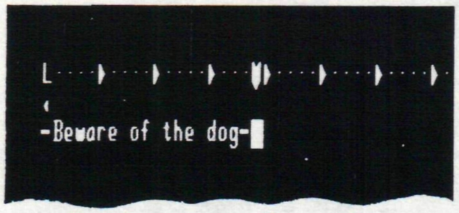
Special Printer Codes

There are several special codes which initiate certain printer related functions. These codes can be used to perform various operations within your text. They include:

- Bold Printing
- Required Backspace
- Overstrike
- Optional Text
- Stop Code

Bold Print

Bold printing can be selected to emphasize a word or a portion of text. Bold is a form of thick printing which highlights specified text on printout.



```
L····▶····▶····▶···V▶····▶····▶····▶·
‹
-Beware of the dog-█
```

There are two kinds of bold printing you can select with the 500 Series. They include:

- **Multi-hit Bold:** Each printed character is struck a number of times in the same place.
- **Shadow Bold:** Each printed character is struck again a fraction of an inch away from the first strike to create a shadow effect on each letter.

The selection for the type of bold printing you desire is made in the Document Status Menu when creating a document, and it can be changed throughout the document.

To print bold, a bold code is typed at the beginning and at the end of the text to be bold-faced. Boldface type will appear when the text is printed.

To Issue a Bold Print Command on Input

Instructions:

1. Press CODE + F7 (Status Menus).
2. Press F7 to display the Variable Line Formats Document Status Menu.
3. Make the appropriate bold selections in the Document Status Menu:
   - Enter "S" for Shadow Bold
   - Enter "M" for Multi-hit Bold
   - If Multi-hit Bold, enter number of hits.

   Note: If the type of bold is to be varied throughout the document, the Document Status Menu selections should be made prior to entering the bold command.
4. Directly before the text to be bold printed, press CODE + B to enter the bold command. A special bold symbol (-) will appear on the screen. This symbol takes up a space on the screen but does not represent a character space.
5. Type the text to be printed in bold.
6. Press CODE + B again to enter the bold code to end the bold command.
7. Print the text when required (see previous instruction).

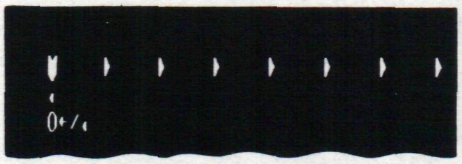
To Enter Bold Codes on Text Previously Typed

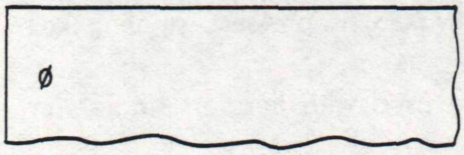
Instructions:

1. Press CODE + F7 (Status Menus).
2. Press F7 to display the Variable Line Formats Document Status Menu.
3. Make the appropriate bold selections in the Document Status Menu:
    - Enter "S" for Shadow Bold
    - Enter "M" for Multi-hit Bold
    - If Multi-hit Bold, enter number of hits.

   Note: If the type of bold is to be varied throughout the document, the Document Status Menu selections should be made prior to entering the bold command.
4. Move the cursor to the first character to be bold.
5. Press CHAR ENTER.
6. Press CODE + B.
7. Move the cursor directly after the last character to be bold.
8. Press CHAR ENTER.
9. Press CODE + B.
10. Print the text as required (see previous instructions).

Required Backspace





A required backspace instructs the system to print one character on top of another. This enables you to create unusual characters that are not available on a printwheel. For example, you could use a required backspace to distinguish the number zero from a capital letter O. By using a required backspace, you can print a slash through all zeros (/). Several required backspace codes can even be entered to move back a number of positions if necessary.

A required backspace is typed directly after the character you want to print over by pressing CODE + BACKSPACE. The required backspace character appears on the screen (←). This character does not take up a space when text is printed. It may, however, cause premature wordwrap. The proper number of characters can be placed on a line by adjusting the text. After the required backspace is entered, type the character you want to print on top of the previous character. When the text is printed, the character that follows the required backspace code is printed on top of the character that comes before the code. The required backspace code does not print.

To Type a Required Backspace

Instructions:

1. Type the first letter, number, or symbol.
2. Press CODE + BACKSPACE and the required backspace character will appear on the screen.
3. Type the letter, number, or symbol you want to print on top of the first character.

Stop Code

The stop code signals the system to stop printing at a specified place in the text. For example, you can type a stop code at the end of a section of text so the printwheel can be changed to another style.

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When the printer stops for a stop code, a prompt will appear to let you know the reason for stopping. Then you perform whatever is required. Once ACK (CODE + MSGS) is pressed, printing will resume.

Note: Stop codes should not be used with headers, footers or footnotes.

To Enter a Stop Code

Instructions:

1. Position the cursor at the point where you want the printer to stop, then press CODE +, (comma).
2. Respond to the prompt by typing a message for the operator to explain the purpose of the stop code (up to 34 characters). Your message will display when the document is printed and the printer stops.
3. ENTER to store your message with the text.
4. Continue with your text entry.

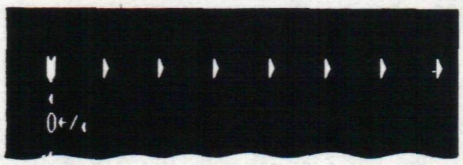
When the system is in Trace Mode and the cursor rests on a stop code, your message is displayed at the top of the screen.

Printing With a Stop Code

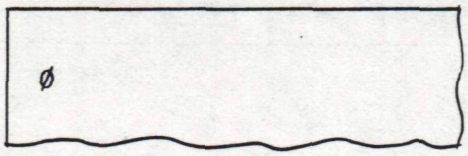
Instructions:

1. Initiate printing as required.
2. The printer stops at the stop code and a message appears to let you know the reason for stopping and what to do.
3. Perform the task required by the prompt.
4. Press ACK (CODE + MSGS) to continue printing.

Required Backspace



0←/



A required backspace instructs the system to print one character on top of another. This enables you to create unusual characters that are not available on a printwheel. For example, you could use a required backspace to distinguish the number zero from a capital letter O. By using a required backspace, you can print a slash through all zeros (/). Several required backspace codes can even be entered to move back a number of positions if necessary.

A required backspace is typed directly after the character you want to print over by pressing CODE + BACKSPACE. The required backspace character appears on the screen (←). This character does not take up a space when text is printed. It may, however, cause premature wordwrap. The proper number of characters can be placed on a line by adjusting the text. After the required backspace is entered, type the character you want to print on top of the previous character. When the text is printed, the character that follows the required backspace code is printed on top of the character that comes before the code. The required backspace code does not print.

To Type a Required Backspace

Instructions:

1. Type the first letter, number, or symbol.
2. Press CODE + BACKSPACE and the required backspace character will appear on the screen.
3. Type the letter, number, or symbol you want to print on top of the first character.

Stop Code

The stop code signals the system to stop printing at a specified place in the text. For example, you can type a stop code at the end of a section of text so the printwheel can be changed to another style.

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When the printer stops for a stop code, a prompt will appear to let you know the reason for stopping. Then you perform whatever is required. Once RETURN is pressed, printing will resume.

To Enter a Stop Code

Instructions:

1. Position the cursor at the point where you want the printer to stop, then press CODE +, (comma).
2. Respond to the prompt by typing a message for the operator to explain the purpose of the stop code (up to 34 characters). Your message will display when the document is printed and the printer stops.
3. ENTER to store your message with the text.
4. Continue with your text entry.

When the system is in Trace Mode and the cursor rests on a stop code, your message is displayed at the top of the screen.

Printing With a Stop Code

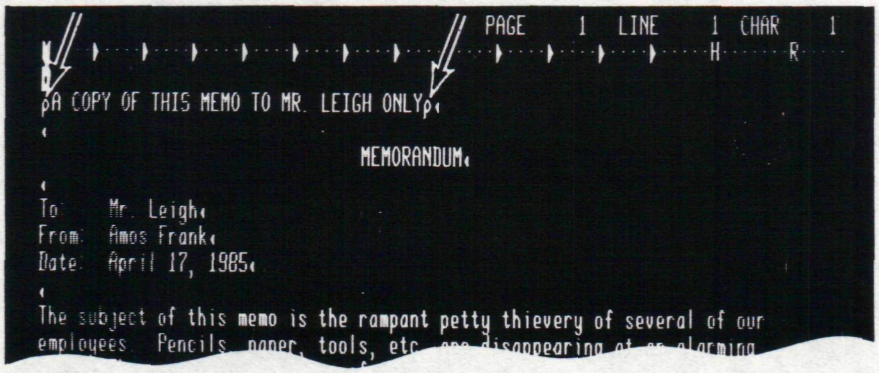
Instructions:

1. Initiate printing as required.
2. The printer stops at the stop code and a message appears to let you know the reason for stopping and what to do.

   Note: Stop codes should not be used with headers, footers or footnotes.
3. Perform the task required by the prompt.
4. Press RETURN to continue printing.

Optional Text

Some documents have sections that you may not always want printed with the rest of the document. For example, special confidential information or an operator instruction line should be read by certain people only. This is called optional text and it can be entered into a document using a special code. A Printer Status Menu selection is made to either print the optional text with the document or not. Optional text lines *do not* leave blank space in the document when they are *not* printed. The lines below are moved up and printed in their place.



```
                                              PAGE    1  LINE    1  CHAR    1
 ····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸····H······R····
ρA COPY OF THIS MEMO TO MR. LEIGH ONLYρ◂
◂
                               MEMORANDUM◂
◂
To:     Mr. Leigh◂
From:   Amos Frank◂
Date:   April 17, 1985◂
◂
The subject of this memo is the rampant petty thievery of several of our
employees.  Pencils, paper, tools, etc. are disappearing at an alarming
```

To Define Optional Text

Instructions:

1. Position the cursor at the position where you want to type the optional text.

   Note: Press CHAR ENTER if you are entering the code into existing text.

2. Press CODE + . (period). An optional text symbol (ρ) will appear.
3. Type the optional text.
4. Press CODE + . (period) again to end this optional text command.

   Caution: If you neglect to input the final optional text code, all text following the first code will *not* print.

To Print Optional Text

Instructions:

1. Press CODE + F7 (Status Menus).
2. Press F8 to display the Printer Status Menu.
3. Answer "Y" to the "PRINT OPTIONAL TEXT" selection.

   Note: If you do not want optional text to print, answer "N" to the Printer Status Menu selection.
4. Press ENTER to make the selection, then press RETURN.
5. Move the cursor to the document in the Index which contains the optional text.
6. Press F7 (Print Document). All of the optional text will be printed if "Y" has been entered in the Printer Status Menu.

Overstrike

The overstrike feature is used to strikeover specified text to show that a change has been made in the document.

To overstrike, you must simply define the text to be overstruck, then make a selection in the Document Status Menu as to what character will be the overstriking character on printout.

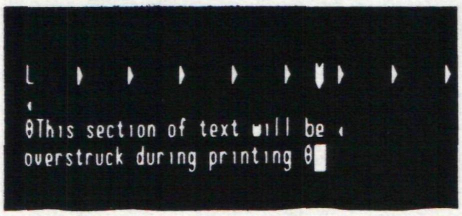
To Define Text to be Overstruck

Instructions:

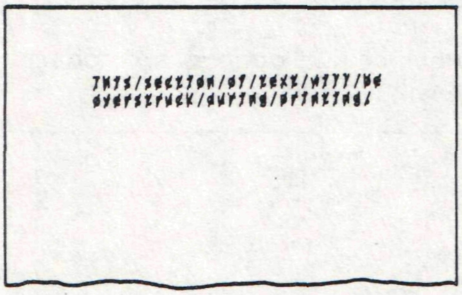
1. On the line prior to entering the overstrike code, press CODE + F7 (Status Menus).
2. Press F7 to display the Variable Line Formats Menu. (Press CODE + 7 if on Line 1 of the document.)
3. Answer the "OVERSTRIKE CHARACTER" selection by typing the particular character you want to overstrike the defined text.
4. Position the cursor before you type the text to be overstruck.

   Note: Press CHAR ENTER if you are entering the code into existing text.
5. Press CODE + o. An overstrike symbol will appear (θ).
6. Type the text to be overstruck.
7. Press CODE + o again to end this command.
8. Print the document as required.

   Note: The overstrike character can be changed throughout the doucment if required. The Document Status value for the new overstrike character must be changed just prior to entering the codes.



```
L  ▸  ▸  ▸  ▸  ▸▾▸  ▸  ▸
‹
θThis section of text will be ‹
overstruck during printing θ█
```



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This/section/of/text/will/be
overstruck/during/printing/
```

Using the System as a Typewriter

You will find that most of your applications will be completed using the word processing mode of operation and printing. There may be times, however, when you will want to type a short form, label, or envelope. For these applications, you can use the Direct Type Mode.

In the Direct Type Mode, as each character is typed and displayed on the screen, it also prints on the paper simultaneously. It is like having a standard typewriter with a screen that shows what is being typed.

To Enter the Direct Type Mode

Instructions:

1. Clear the screen.
2. On line 1 of the screen, access the Document Status Menus by pressing CODE + F7, then press F7 again.
3. Press CODE + ↓ to move to the Variable Line Formats Menu.
4. Select the desired pitch and line spacing values.
5. Press RETURN to return to the screen.
6. Press CODE + F12 (Utilities).
7. Select the Direct Type Mode by pressing F8 (Direct Type).
8. Insert a sheet of paper into the printer.
9. Begin typing the text. As the characters display on the screen, they will also print on the sheet of paper.

Special Notes:

- Enter RETURNS as you normally would if using a regular typewriter.
- *DO NOT* attempt to use any of the editing functions, since they will *not* correct the printed text.
- Use the left and right Cursor Control Keys to move the print head accordingly. The up and down keys will *not* function in Direct Type.

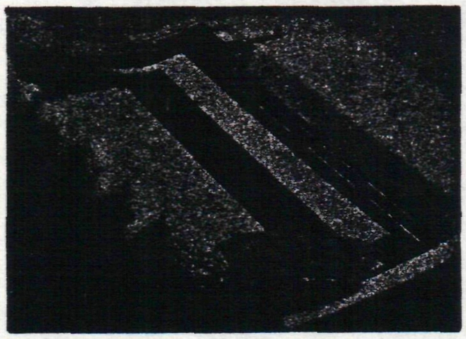
To Exit the Direct Type Mode

Instructions:

1. Press the STOP PRINT key, located on the Screen/Numeric Keypad.

Printer Maintenance

Removing/Replacing the Printer Cover



To access the printwheel and ribbon cartridge, the printer cover must first be removed.

To Remove

Instructions:

1. Grasp the side edges of the cover with both hands.
2. Slide the cover backwards and toward you. A beep will sound to indicate it is off.

   Caution: Do not tilt up.

To Replace

Instructions:

1. Lay the cover in place, then slide it back into position.

   BE SURE the printer cover is on correctly. If it is not, the light will flash and the printer will not function until the cover is properly in place.

Replacing the Ribbon Cartridge

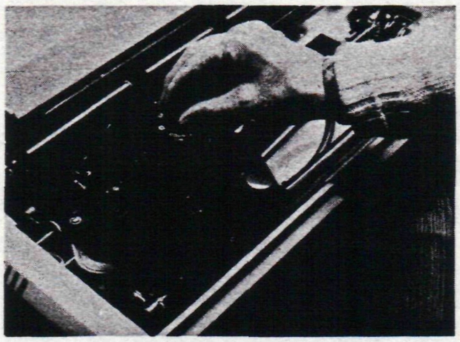
During printing, the printer will stop automatically and the light will flash when the ribbon supply has run out. Follow the steps below to replace the cartridge.

To Replace the Ribbon Cartridge

Instructions:

1. Remove the printer cover.
2. Remove the ribbon cartridge by pressing the red retaining latches on either side of the emptied cartridge to release it.
3. Discard the old ribbon.
4. Take the new ribbon cartridge out of the package and remove the cardboard tab which holds the ribbon in place.
5. Place the cartridge with the white label facing downwards onto the cartridge holder. Be sure the ribbon loop is *behind* the silver posts and printwheel.
6. Press the cartridge down until it snaps and locks into place between the red retaining latches.
7. Replace the printer cover.

Installing a Printwheel



Printwheels can be changed to accommodate the different printstyles you require.

To Change the Printwheel

Instructions:

1. Remove the printer cover (see previous instructions).
2. Remove the ribbon cartridge.
3. Holding the red/black printwheel bar with your thumb, press the silver tab to the right of the bar with your index finger to release the printwheel holder.
4. Pull back on the bar keeping your finger depressed on the silver release tab. The printwheel carriage will tilt back to allow you access to the printwheel.
5. Grasp the knob in the center of printwheel which is already in the printer and pull upwards to remove.
6. Grip the new printwheel by the center knob, holding the flat side of the printwheel down.
7. Align the metal tab on the printwheel carriage with the slot in the printwheel.
8. Press the printwheel down firmly on the carriage. If the printwheel is not as tight against the carriage as possible, printout will be affected.
9. Push the printwheel bar and carefully tilt the printwheel carriage back towards the platen until it locks into place.
10. Install the ribbon cartridge and replace the cover (see previous instructions).

    Note: When changing printwheels, be sure the corresponding printwheel number is entered in the Printer Status Menu. A chart listing the various printwheel numbers is listed in Appendix D located in the back of the Reference Manual.

SECTION 7A PRINTING WITH THE 965 PRINTER

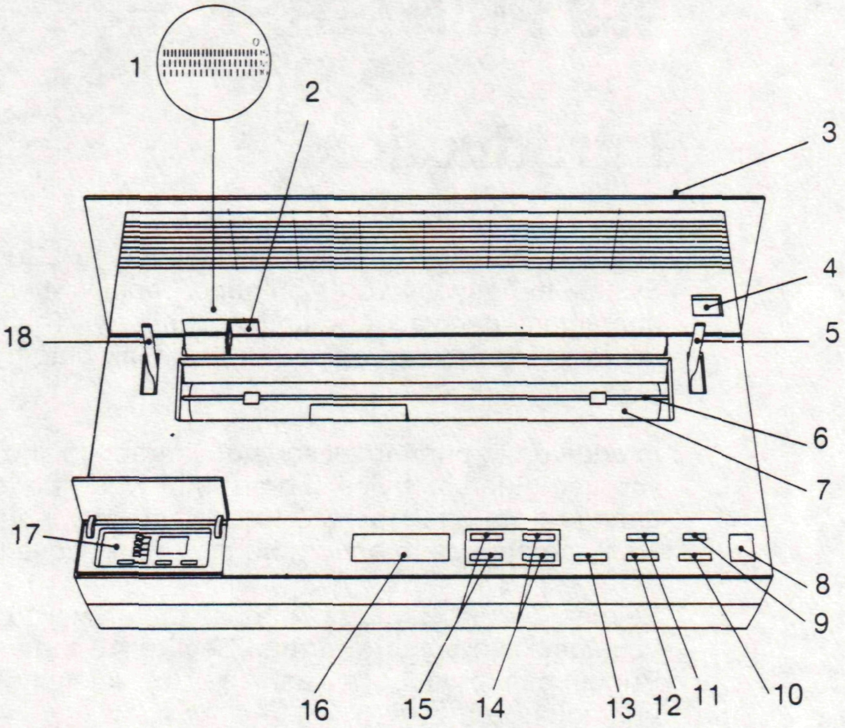
Introduction

The EXXON 965 Printer works with your Business Support System to put your words on paper rapidly—between 60 and 90 characters per second—and noiselessly. This state-of-the-art ink jet printer sprays a fine stream of ink onto the paper in precise patterns.

In addition to printing all sorts of characters, the 965 Printer lets you use different styles and sizes of type in one document. To change from one typeface to another, just indicate where you want the change to occur and the printer does the rest.

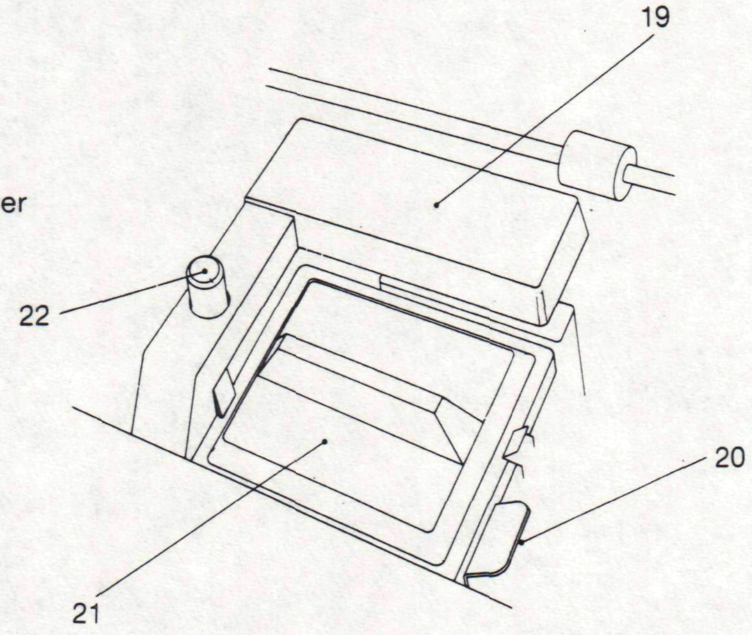
Section 7A shows you how to use the printer to your fullest advantage. Also be sure to read Section 19 to learn how the 965 Printer can produce a vast array of scientific and oversized characters.

The Printer



Printer Components

1. Pitch Scale
2. Paper Edge Guide
3. Paper Holder
4. On/Off Switch
5. Paper Release Lever
6. Paper Bail
7. Platen
8. Stop
9. On-Line Light
10. Start/Continue
11. Reprint Page
12. Reprint Doc.
13. Advance Page
14. Fine Step
15. Half Line Step
16. Indicator Lights
17. Control Panel
18. Auto-Insert Lever
19. Print Head.
20. Ink Cartridge Release Lever
21. Ink Cartridge
22. Ink Flow Setting



Printer Components

Before you print a document, take a few minutes to become acquainted with the 965 Printer. Use the accompanying diagram to help you identify the parts. At the end of this section you'll find more detailed information on running printer diagnostic tests, maintaining the printer and interpreting printer error messages.

Printer cover protects the working parts inside the printer. Raise the cover to change the ink cartridge or to clean the print head.

CAUTION: The printer cover is held closed by a magnet. To avoid possible disk erasures, DO NOT place program and data disks on top of the printer.

Platen supports the paper when a document is being printed.

Paper bail holds the paper firmly against the platen.

Paper release lever releases pressure from the platen so the paper can be adjusted or removed manually.

Auto-insert lever inserts paper automatically. Pull it halfway forward to open the paper bail. Pull it forward again and it rolls the paper up to the first printing line.

Pitch scale contains marking for 10-, 12- and 15-pitches. Use the scale to insert paper so printing begins at the left margin you have chosen.

Paper edge guide helps you position the paper for the left margin.

Covered control panel houses the controls for changing printer settings and performing diagnostic tests. (For more information on using these controls, see "Changing Formats at the Printer" and "Diagnostic Tests.")

Paper holder supports the paper when it is inserted or ejected.

Inside the Printer

Ink cartridge contains enough ink to print about 2,000 pages. The ink is secure inside the cartridge. The ink flow setting on the cartridge is set to the open position by the Exxon Field Engineer during installation. (To change the cartridge, consult the directions in the "Printer Maintenance" section.)

Print head sprays ink onto the paper. It will need cleaning periodically. (See the directions in the "Printer Maintenance" section.)

Paper Controls

Half Line Step (▲ or ▼) rolls the paper up or back one-half line when the control is pressed once. Hold down the control to roll the paper continuously.

Fine Step (▲ or ▼) rolls the paper up or back 1/96 of an inch when the control is pressed once. Hold down the control to roll the paper continuously.

Advance Page ejects the paper from the printer. If you press this control when continuous forms are in use, the next form is moved to the first printing position.

Switches

ON/OFF controls the power to the printer.

START/CONTINUE places the printer on line with the main system. When the printer is on line, it can receive and print text from your system. Press the switch again to place the printer off line.

STOP places the printer off line so you can activate any of the printer controls or change any settings. The printer must be off line when you insert, adjust or eject paper.

REPRINT PAGE is a future enhancement.

REPRINT DOC is a future enhancement.

Indicator Lights

POWER (green) indicates the printer is receiving power.

WAIT (yellow) remains on while the printer is warming up. The printer will not operate when WAIT is on.

ERROR (red) indicates a printer problem. The red error light flashes, the printer beeps, and a two-digit code appears in the display window to identify the error. (See "Error Codes" in this section.)

INK LOW (red) flashes when there is enough ink supply to print about 30 more pages. When the ink cartridge is completely empty, the printer halts and the INK LOW light remains on until a new cartridge is in place.

ON LINE (green, above START/CONTINUE) indicates the printer can receive text from your system for printing.

Covered Control Panel

The covered controls are used to set certain page lengths and to run diagnostic tests. Lift the hinged cover to gain access to these controls.

MODE initiates changes or diagnostic tests.

SELECT chooses a new setting or diagnostic test.

TEST START/STOP starts or finishes diagnostic tests.

SET FORM LENGTH specifies, by number of lines, the length of paper.

SET TOP MARGIN specifies the number of lines the printer is to advance the paper to reach the first printing position.

SELECT FONT selects a font to check the proper printing.

SELF TEST selects the diagnostic tests to identify specific problem areas.

DISPLAY WINDOW shows a two-digit number when you are changing printer settings or conducting self tests. When the number flashes, a printer error is indicated and the number identifies the nature of the problem. (See "Error Codes" in this section.)

Using the Printer

Before the 965 Printer can be used, it must be turned on and allowed time to warm up.

Powering On the 965 Printer

Instructions:

1. Press ON/OFF.

   As the printer warms up, the yellow WAIT light remains on. Do not try to print a document until the WAIT light goes off.

Inserting Paper

The method for feeding paper is designated in the Printer Status Menu. (See "Printer Status Menu.") If you have selected M for manual feed, you must insert a sheet of paper before each page is printed. The system prompts you to insert the paper. With a sheet feeder, paper is fed and ejected automatically. A tractor feeder feeds continuous paper into the printer.

The instructions in this manual assume you will be printing in Manual Mode. If you have a sheet feeder or tractor feeder, refer to the instructions delivered with that equipment.

Before you send a document to the printer, insert paper in the printer. Be sure the printer prints on the correct surface of the paper, and the paper is in the right place for printing to begin.

Typewriter paper is made so one surface accepts print better than the other. Typically, the printing surface is face up when the package of paper is right side up. To locate the superior surface, look for the side with a smooth appearance; the inferior side has a meshed look. If you are working with watermarked paper, the superior surface is the side on which you can read the watermark. For best printing results, insert the paper so the inferior side is against the platen, and the superior side receives the print.

When you insert or remove paper, the printer must be off line. Off line means the printer is disconnected from your system and only the mechanical parts of the printer are usable (parts like the advance page control, the auto-insert lever). After the paper is correctly positioned, put the printer back on line so your document can be printed. When the printer is on line, it can receive information from your system.

Instructions:

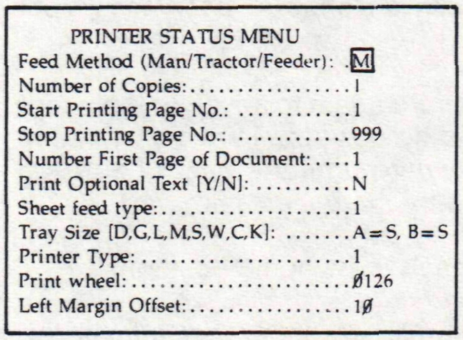
1. Press STOP on the printer to place it off line.
2. Insert the page with the superior side against the clear plastic paper holder and the edge flush with the paper guide.
3. Pull the auto-insert lever forward once to open the paper bail.
4. Pull the auto-insert lever forward again to advance the paper automatically to the first printing position. To avoid wrinkling the paper, hold the lever forward until the paper has been rolled up enough to be held by the paper bail.
5. Push the auto-insert lever back to its home position.
6. If the paper is not straight, pull the paper release lever forward and adjust the paper. Then push the lever back.
7. Use the HALF LINE STEP controls to roll the paper either forward or backward.
8. Press START/CONTINUE to put the printer on line. The green light above START/CONTINUE goes on. When the printer is on line, the auto-insert lever and the paper controls cannot be used.

Removing a Sheet of Paper

After the page has been printed, press STOP to place the printer off line, then press ADVANCE PAGE to eject the paper. You can also eject the paper by holding down the HALF LINE STEP control or using the paper release lever to remove the paper by hand.

Printer Status Menu

In the Printer Status Menu, you tell the printer how to print the document. The Menu defines basic printing operations, such as how the paper should be fed into the printer, what pages of the document should be printed and how many copies should be made. When software is loaded, a default status menu is in effect. Make any necessary changes to the Printer Status Menu just before you send the document to the printer. If you want the document printed according to the default values in the Menu, you do not have to make changes.



```
       PRINTER STATUS MENU
Feed Method (Man/Tractor/Feeder): .M
Number of Copies:..................1
Start Printing Page No.: ..........1
Stop Printing Page No.: ...........999
Number First Page of Document:.....1
Print Optional Text [Y/N]: ........N
Sheet feed type:...................1
Tray Size [D,G,L,M,S,W,C,K]: ......A=S, B=S
Printer Type:......................1
Print wheel:.......................0126
Left Margin Offset:................10
```

New settings in the Printer Status Menu stay in effect until you store a document, read a document from the Index or power the system off and on. In these situations, the Menu is automatically reset with the default values. (See Section 8 to change the default settings permanently.)

Displaying the Menu

Instructions:

1. Press CODE + F7 (Status Menus).
2. Press F8 (Printer Status Menu). The Printer Status Menu is displayed on the screen.
3. RETURN to display your document.

Changing the Menu Settings

Instructions:

1. Display the Printer Status Menu.
2. Move the cursor to the setting you want to change.
3. Type your new entry. BACKSPACE to clear any errors, and retype the selection.
4. ENTER to record your answer.

   The system resets the default value if you type an unacceptable answer.
5. Repeat steps 2 through 4 to make other changes.
6. When all changes have been made, RETURN to display the document or blank screen.

Description of the Menu Settings

Feed Method (Man/Tractor/Feeder) tells the printer how the paper will be inserted into and ejected from the printer.

M: Each sheet of paper is inserted manually. M is the default setting.

T: A tractor feeder attached to the printer feeds continuous paper into the printer.

F: An automatic sheet feeder attached to the printer inserts and ejects the pages automatically.

Number of Copies specifies the number of copies of the entire document to be printed. The default setting is 1. You can change this setting to any number up to 999. When multiple copies of the document are printed, the system prints the pages of each set in order so your copies are automatically collated.

Start Printing Page No. defines which page of the document will be the first one printed. The default setting is 1, meaning the first page. Change this setting if you want to print only part of a document.

Stop Printing Page No. defines which page in the document will be the last one printed. The default is 999, meaning the last page. Change this setting if you want to print only part of a document.

Number First Page of Document indicates the page number to be printed on the first page containing a page number code. This setting is used in conjunction with Headers and Footers, discussed in Section 6. The default setting is 1, for the first page. Change this setting if you want page numbering to start on another page; for instance, after a table of contents or title page.

Print Optional Text [Y/N] defines whether or not text between special printer codes is to be printed. Use this feature if you do not want to include instructions or confidential information in the printed document. The default value is N for No. To print optional text, change this setting to Y. (See "Printing Optional Text" in this section.)

Sheet Feed Type defines the type of sheet feeder that is attached to the printer. Use 1, the default, for a sheet feeder attached to the 965 Printer.

Tray Size [D,G,L,M,S,W,C,K] specifies the size of the trays in the sheet feeder. For instance, the choices include legal, standard and wide. The defaults are A=S, B=S, for standard 8½" x 11" trays. *A* refers to the upper tray and *B* to the lower tray. Refer to your sheet feeder manual for instructions on using nonstandard trays.

Printer Type defines the type of printer attached to your system. The default value is 1 for the 965 Printer.

Print Wheel. The 965 Printer does not have a print wheel. The setting 0126 refers to fonts with the Word Processing Character Set. Change the setting to 0129 only if you are using Standard Character Set fonts and want to use the ASCII characters available on those fonts.

Left Margin Offset defines the distance, in number of characters, from the left edge of the paper to the start of text. The default setting is 10, which corresponds to one inch when 10-pitch type is used. Therefore, if you change the left margin of the document to 5, the printed text will begin 15 spaces from the left edge of the paper. The Left Margin Offset is useful in providing space for illustrations and for printing envelopes.

Standard Printing Procedures

Documents can be printed in a variety of ways on your system:

- **Background Printing.** Print one document from the Index and continue working on another.
- **Print Queuing.** Designate up to five documents to be printed from the Index.
- **Foreground Printing.** Print the document displayed on the screen, even before the document is stored on disk.

Printing Documents from the Index (Background)

Once a document has been stored, it can be printed directly *from the Index. You can also queue up to five documents to be* printed from background. Documents are printed in the order they are queued.

Printing One Document from Background

Instructions:

1. Press STOP on the printer to place it off line. Insert paper and press START/CONTINUE to place the printer on line.
2. Make any necessary changes in the Printer Status Menu.
3. Press F1 (Index Operations).
4. Move the cursor to the name of the document to be printed. (Use CODE + DOWN or UP ARROW to move through the various pages in the Index.)
5. Press F7 (Print Doc).

   The system prompts: Insert page in the printer and press ACK.
6. Press CODE + MSGS (ACK). Printing begins immediately.
7. You can continue typing or editing other documents while text is printing.

Queuing Documents for Printing from Background

Instructions:

1. Place the printer off line and insert paper.
2. Press START/CONTINUE to place the printer on line once the paper is in place.
3. Make any necessary changes in the Printer Status Menu. The settings in the Printer Status Menu apply to all documents that are queued.
4. Press F1 (Index Operations).
5. Move the cursor to the name of the first document to be printed.
6. Press F7 (Print Doc).
7. When the system prompts you to insert paper, press CODE + MSGS (ACK). The printer starts printing the first document.
8. Move the cursor to name of the next document to be printed.
9. Press F7 (Print Doc).
10. Continue to queue up to three more documents by repeating steps 8 and 9. Insert paper and press CODE + MSGS (ACK) as prompted by the message at the top of the screen.

Printing Documents from the Screen (Foreground)

Instructions:

1. Place the printer off line and insert a sheet of paper.
2. Press START/CONTINUE to place the printer on line.
3. Read the document to the screen.
4. Make any necessary changes to the Printer Status Menu.
5. Press PRINT (PRINT SCRN on some keyboards). A message on the screen prompts you to insert paper.
6. Press CODE + MSGS (ACK). The printer begins printing your document.

Stopping the Printer

To cancel a print instruction, press STOP PRINT on the keyboard. The printer stops after the printer buffer has been emptied.

If you press STOP PRINT while several documents are queued to the printer, only the document currently being printed is canceled. To cancel more than one document, press STOP PRINT for each document queued.

Print Pause

To suspend printing temporarily, press the STOP button on the printer. The printer will finish printing the current line and then stop. Use print pause when you have to remove or insert paper, or make adjustments to the printer. STOP does not cancel the print request; it only places the printer off line to allow you to operate the printer controls. To resume printing, press START/CONTINUE.

Printing Parts of a Document

You may want to print only a part of a document, a few pages or even a few lines of the text. This section describes two methods you can use:

- Print a block of text (Foreground).
- Print a section of a document (Background or Foreground).

Printing a Block of Text

Instructions:

1. Insert paper in the printer, and press START/CONTINUE to place the printer on line.
2. Read the document to the screen.
3. Make any necessary changes to the Printer Status Menu.
4. Press F4 (Block Operations). The system prompts you to define the start of the block.
5. You may be prompted to update the original. Answer Y or N accordingly.
6. Move the cursor to the first character of the block.
7. ENTER
8. Move the cursor to the character directly to the right of the end of the block. If the last character of the block is a RETURN, place the cursor at the left margin of the line after the RETURN.
9. ENTER
10. Press F1 (Print). When the prompt is displayed on the screen, press CODE + MSGS (ACK).

Printing a Section of a Document

If only a few pages of a document have been changed, you can print just those pages by specifying the starting and ending pages in the Printer Status Menu. For instance, if corrections were made on pages 5, 6, 7 and 8, the starting page is 5 to print just the corrected pages and the ending page is 8. Similarly, if you want to print just one page of a document, that number is both the starting and ending page. You can print selected pages of a document from either foreground or background. If page numbering is to be included on any of the pages, refer to "Page Numbering" in Section 6 of this manual.

Instructions:

1. Insert paper in the printer and press START/CONTINUE to place the printer on line.
2. Press CODE + F7 (Status Menus) from a blank screen or an open document.
3. Press F8 (Printer Status Menu).
4. Move the cursor to Start Printing Page No.
5. Type the number of the first page to be printed.
6. ENTER
7. Move the cursor to Stop Printing Page No.
8. Type the number of the last page to be printed.
9. ENTER
10. If required, move the cursor to Number First Page of Document.
11. Type the number of the first page requiring a page number. (See Section 6.)
12. ENTER
13. RETURN to display the blank screen or the document.
14. Print the document from either background or foreground.

Multifont Printing

Multifont printing allows you to print a document in one or many typefaces. Unlike impact printers using printwheels, font changes on the 965 Printer are made quickly and easily from a menu.

A font is a collection of characters that comprises letters, numbers and symbols all sharing the same style and pitch. Each font prints a different typeface, like Courier, Gothic, or Bodoni. Typefaces also vary by size. They are either 10-pitch, or 10 characters to an inch; 12-pitch, or 12 characters to an inch; 15-pitch, or 15 characters to an inch, or proportionally spaced.

Between four and eight different fonts are installed in your 965 Printer. You can use any of them as often as you like within a document.

Use the Font Selection Menu to identify the fonts installed in your printer and to change fonts for an entire document or within a document. Font changes are stored with the document. When the Font Selection Menu is displayed, a two-digit number indicates the font currently in effect. All fonts are listed, each with its own identification number. Courier 10 (Font #01) is the default font.

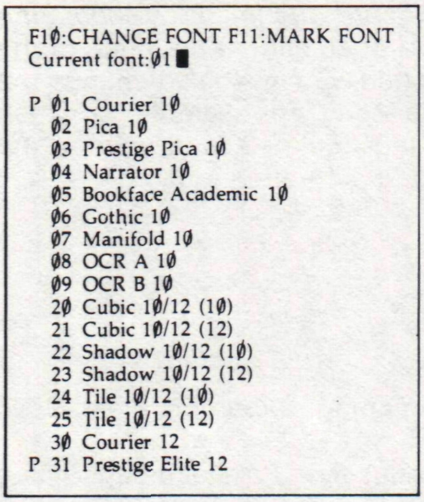
Displaying the Font Selection Menu

The complete list of available fonts is displayed in a three-page Font Selection Menu. Page through the Menu to see the entire list.

Instructions:

1. Press CODE + F7 (Status Menus).
2. Press F9 (Font Selection Menu). The first page of the list of fonts is shown with the current font listed on the status line.
3. Press CODE + DOWN ARROW to view the next screen. Press CODE + UP ARROW to return to the preceding screen.
4. RESET to return to the document.

Marking Fonts



```
F10:CHANGE FONT F11:MARK FONT
Current font:01 ▮

P 01 Courier 10
  02 Pica 10
  03 Prestige Pica 10
  04 Narrator 10
  05 Bookface Academic 10
  06 Gothic 10
  07 Manifold 10
  08 OCR A 10
  09 OCR B 10
  20 Cubic 10/12 (10)
  21 Cubic 10/12 (12)
  22 Shadow 10/12 (10)
  23 Shadow 10/12 (12)
  24 Tile 10/12 (10)
  25 Tile 10/12 (12)
  30 Courier 12
P 31 Prestige Elite 12
```

By having the system mark fonts, you can see which fonts you can use. To use the Mark Font function, your printer must be on line.

Instructions:

1. If your printer is off line, press START/CONTINUE to place it on line.
2. From a blank screen or document press CODE + F7 (Status Menus).
3. Press F9 (Font Selection Menu).
4. Press F11 (Mark Font).

   The Mark Font symbol (P) to the left of the font number identifies the fonts installed in your printer. Make sure you review all three pages of the menu to see the entire list.

5. Use CODE + DOWN ARROW once to see fonts listed on the second page; CODE + DOWN ARROW again to view the third page. Use CODE + UP ARROW to return to the previous page.

   For your convenience, jot down the fonts you can use here.

6. RESET to return to the document.

Changing the Font for an Entire Document

You can change the font for an entire document by indicating the new font at the beginning of a document. If the pitch of the new font differs from the default pitch, you must also change the pitch in the Variable Line Formats Menu. For example, to switch from a Courier 10 font to a Prestige Elite 12 font, change the pitch from 10 to 12 before selecting a 12-pitch font.

Instructions:

Selecting the Pitch

1. Position the cursor at the beginning of the document.
2. Press CODE + F7 (Status Menus), then F7 (Document Status Menu).
3. Press CODE + DOWN ARROW to display the Variable Line Formats Menu.
4. Type the pitch for the new font and ENTER.
5. RETURN to display the document.

Selecting the New Font

6. Press CODE + F7 (Status Menus), then F9 (Font Selection Menu). The status line indicates the current font.
7. Press F10 (Change Font).
8. Type the two-digit identification number of the new font.
9. ENTER. The system displays the new font ID number on the status line.
10. RESET to display the document.

NOTE: You can skip steps 5 and 6 and go directly to the Font Selection Menu from the Variable Line Formats Menu by pressing F9.

Changing Fonts Within a Document

To emphasize certain text, or to give a more distinctive appearance to paragraphs, phrases, words or headings, you can use different fonts within a document as often as you like.

The instructions you follow depend on what you need to do:

- Change fonts with the same pitch: For example, changing from Courier 10 to another 10-pitch font.
- Change fonts with a different pitch: For example, changing from Courier 10 to Gothic 12.
- Change fonts with a different pitch when the document contains leading spaces: This change is like the one above, except that the document contains tables, charts or equations that have leading spaces. (Leading spaces are those spaces between the left margin and text which are created with the space bar, not with a tab or indent.)

Changing Fonts of the Same Pitch Within a Document

Instructions:

1. Whether typing or editing text, move the cursor to the first character to be changed.
2. Press CODE + F7 (Status Menus), then F9 (Font Selection Menu). The current font is shown on the status line.
3. Press F10 (Change Font).
4. Type the two-digit identification number of the new font.
5. ENTER. The status line shows the new font ID number.
6. RESET to display the document.
7. Repeat steps 1 through 6 to change the font elsewhere in the document.

Changing Fonts of Different Pitches Within a Document

Instructions:

1. Whether typing or editing text, move the cursor to the first character to be changed.
2. Press CODE + F7 (Status Menus), then F9 (Font Selection Menu). The identification number of the current font is shown on the status line.
3. Press F10 (Change Font).
4. Type the two-digit identification number of the new font.
5. ENTER. The status line shows the ID of the new font.
6. RESET to display the document.
7. Adjust text that corresponds to the font change.

The adjusted text will extend beyond or fall short of the right margin, depending upon the font selected. However, when the document is printed, all text will be printed with the same right margin.

Changing Fonts of Different Pitches Within a Document Containing Leading Spaces

Instructions:

1. Whether typing or editing text, move the cursor to the line above the first character to be changed.
2. Press CODE + F7 (Status Menus), and then F7 again to display the Variable Line Formats Menu.
3. Type the pitch that corresponds to the new font and ENTER. Depending on the application, you may need to change the right margin to correspond to the new pitch.
4. RETURN to display the document.
5. Press CODE + F7 (Status Menus), then F9 (Font Selection Menu).

6. Press F10 (Change Font).
7. Type the two-digit identification number of the new font.
8. ENTER. The status line shows the ID of the new font.
9. RESET to display the document.

NOTE: You can skip steps 4 and 5 and go directly to the Font Selection Menu from the Variable Line Formats Menu by pressing F9.

Special Considerations for Font Changes

- It is a good idea to confirm font changes before printing the document. To do so, press TRACE. A format marker is displayed at each font change marked in the text. Move the cursor to the format marker; the system displays the ID and name of the new font.

- If you select an unavailable font and start to print, the system displays the message:

  Font not available, print anyway? [Type Y or N].

  Type Y to print with the last font used.
  Type N to cancel the print instruction so you can make a new font selection.

- To delete a font change, press TRACE, move the cursor to the font format marker, and press DEL CHAR (CHAR OUT on some keyboards).

- If you recall a stored document containing the format marker for an unavailable font, you can delete the marker and print the document before storing the editing change. However, the system prompts:

  Font not available, print anyway? [Type Y or N].

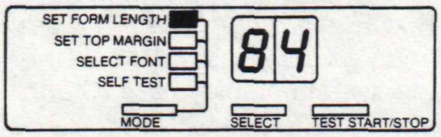
  Type Y. The system then prints with the correct font or fonts.

- The default font, Courier 10, can be changed to another font by changing the system default values. (See Section 8 in this manual.)

Changing Formats at the Printer

While most format changes are stored with each document, you can make other adjustments at the printer. These changes remain in effect until another change is made or the printer is powered off.

Changing the Form Length (Paper Length)



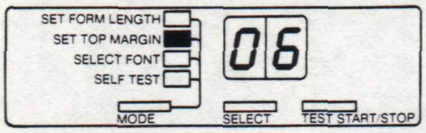
The page or form length can be set at the printer control panel. This is a convenient way to adjust the default setting to accommodate continuous form paper or nonstandard size pages such as legal paper, envelopes or index cards. When you press ADVANCE PAGE, the paper is advanced the number of lines set as the Form Length.

The default setting for Form Length is 66, which corresponds to the number of lines (at 6 lines per inch) in a standard 8½" x 11" page.

Instructions:

1. Make sure the printer is off line.
2. Lift the cover of the control panel.
3. Press MODE until the SET FORM LENGTH indicator is lit.
4. Press SELECT. The display changes from its default setting (66) to 00, and the indicator flashes.
5. Press HALF LINE STEP (▲) to increase the setting by one line. Hold the control down to advance the number continuously. Use the HALF LINE STEP (▼) to go back either one number at a time, or continuously by holding the control down.
6. When the proper setting is displayed, press SELECT. The SET FORM LENGTH indicator stops flashing but remains lit.

Changing the Top Margin



You can also change the top margin at the printer rather than in your document. When you use the auto-insert lever, the paper rolls up the number of lines set for the top margin. You will find changing margins this way to be especially helpful when you are printing multipage documents, forms and envelopes.

The default setting for the top margin is 01, which corresponds to the first line on the paper.

Instructions:

1. Lift the cover of the control panel.
2. Press MODE until the SET TOP MARGIN indicator is lit.
3. Press HALF LINE STEP (▲) to advance the top margin setting one-half line at a time. Use HALF LINE STEP (▼) to reverse the direction.
4. When the proper setting is displayed, press SELECT.

   When you print a document containing headers and footers, leave the top margin at 01 so the printer does not advance the paper additional lines.

Special Printing Applications

Printing the Index

Instructions:

1. Insert paper in the printer and press START/CONTINUE to place the printer on line.
2. Press CODE + F7 (Status Menus), then F8 to display the Printer Status Menu.
3. Enter a 0 (zero) for the Left Margin Offset. To print the Index, the system needs the full width of the page.
4. ENTER, then RETURN to display the document or a blank screen.
5. Press F1 (Index Operations) to display the Index.
6. Press F2 (Print Index). The printer begins printing the Index.
7. If the Index is longer than one page, the printer stops for you to insert paper for the next page. Press STOP to place the printer off line. Insert another sheet of paper, press START/CONTINUE, and then CODE + MSGS (ACK). Printing resumes.

Printing Envelopes

For envelopes, you must change the Left Margin Offset setting in the Printer Status Menu. Use these instructions to print a standard business envelope. The left margin on the screen should be at character position 1.

Instructions:

1. Insert an envelope into the printer to approximately Line 13 and press START/CONTINUE.
2. Press CODE + F7 (Status Menus), then F8 to display the Printer Status Menu.
3. Set the Left Margin Offset to 40 and ENTER.

4. RETURN to display the blank screen.

5. Type the name and address at the left margin.

6. Press PRINT (PRINT SCRN on some keyboards). The system prompts you to insert paper.

7. Press CODE + MSGS (ACK). Printing begins.

To save time inserting envelopes, you can make format changes in the control panel on the printer so the envelope is inserted automatically to the correct printing position. Follow the instructions under "Format Changes at the Printer" in this section and change the Form Length setting to 25 (the number of lines in a standard business envelope) and the Top Margin setting to 13.

If you have many envelopes to print, type the addresses with temporary page breaks (CODE + T) between each address. Follow the envelope print instructions to print all of the envelopes.

If the name and address are already typed on a letter, change the Left Margin Offset to 40, define the name and address as a block and print the block. (See "Printing Parts of a Document" in this section.)

Special Printer Codes

In addition to choosing different typeface styles, you can enhance the appearance of any text by highlighting it, putting it into italics, double underscoring it or using boldface. Special printer codes create these effects on the printed document.

Other special printer codes allow you to:

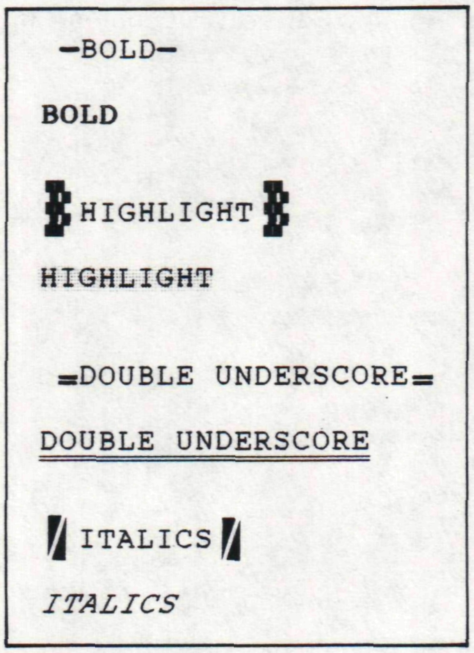
- Create new characters (required backspace).
- Show text to be deleted (overstrike).
- Set off text that appears on the screen but can be omitted when printed (optional text).
- Stop the printer.

Emphasizing Text

These are the special printer codes to use to emphasize text:

Effect	**Code**
Bold	CODE + B
Highlighting	CODE + H
Double Underscore	CODE + Y
Italics	CODE + N

Each one of the codes can be used individually or in combination with other codes. The same code is used to start and stop the effect.



—BOLD—

BOLD

▓HIGHLIGHT▓

HIGHLIGHT

=DOUBLE UNDERSCORE=

DOUBLE UNDERSCORE

/ITALICS/

ITALICS

Instructions:

1. Directly before the text to be emphasized, press CODE + the appropriate letter. A special symbol appears on the screen (see the chart), but does not represent a character space.
2. Type the text to be emphasized.
3. Press CODE + the appropriate letter after the last character to be affected.

Inserting Special Emphasis Codes into Existing Text

Instructions:

1. Move the cursor to the first character to be emphasized.
2. Press INSRT (CHAR ENTER on some keyboards).
3. Press CODE + the appropriate letter. A special symbol appears on the screen (see chart), but does not represent a character space.
4. Position the cursor directly after the last character to be affected.
5. Press INSRT (CHAR ENTER).
6. Press CODE + the appropriate letter.
7. If necessary, press F7 twice to adjust the text.

To check text without seeing the screen symbols, press CODE + TRACE. To redisplay the symbols, press CODE + TRACE again.

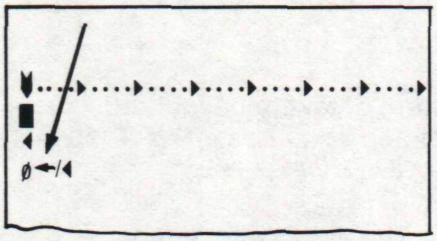
Searching for and Replacing Special Emphasis Codes

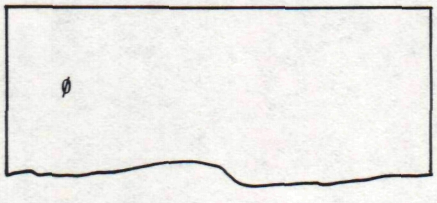
In some instances you may want to search for and/or replace special emphasis codes. Refer to Section 4 in this manual for complete instructions on search and replace operations. This chart lists the specific search and replace strings you should use:

Special Emphasis Code	**Search/Replace String**
Bold	\S
Double Underscore	\E
Highlighting	\N
Italics	\Y

Required Backspace

A required backspace allows two characters to be printed in the same space. For instance, you might want to create a character that is not available on a font. One example is a Ø, the computer zero. To get this result, type 0, enter a required backspace (CODE + BACKSPACE) and then type /. By entering several required backspaces, you can move the printer back several spaces without erasing text. Using the required backspace at the left margin allows you to print text in the margin.





When you use a required backspace, the screen displays a symbol that is not printed. The symbol may, however, cause the line to wrap early. The proper number of characters can be placed on a line by adjusting the text.

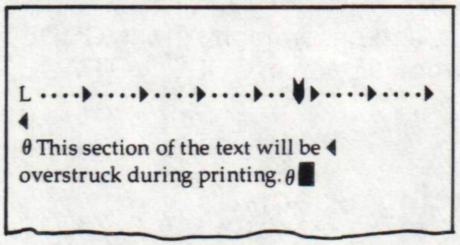
Instructions:

1. Type the first character.
2. Press CODE + BACKSPACE. The required backspace symbol (←) appears on the screen.
3. Type the character to be printed on top of the first character.

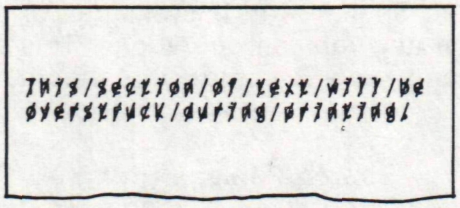
   When the text is printed, the character following the required backspace is printed on top of the character before the symbol.

Overstrike

Use overstrike to indicate text that has been changed. For instance, you might want to show a sentence that was deleted by printing it with dashes or x's through it. To use overstrike, define the text to be overstruck, and then indicate in the Variable Line Formats Menu which character will do the overstriking.



L ····▸····▸····▸····▸··▾▸····▸····▸
◂
θ This section of the text will be ◂
overstruck during printing. θ█



~~This/section/of/text/will/be~~
~~overstruck/during/printing/~~

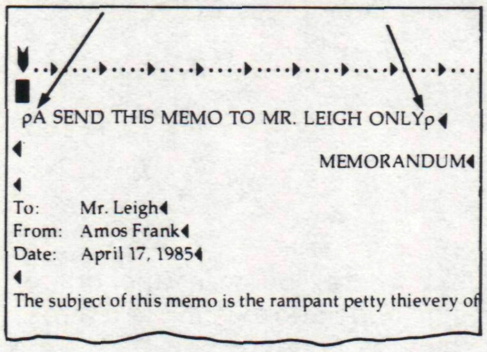
Instructions:

1. On the line prior to entering the overstrike code, press CODE + F7 (Status Menus).
2. Press F7 (Document Status Menu) to display the Variable Line Formats Menu.
3. Move the cursor to the Overstrike Character.
4. Type the character you want to overstrike the defined text.
5. ENTER
6. RETURN to display the document.
7. Move the cursor to the beginning of text to be marked. If you are entering the code into existing text, press INSRT (CHAR ENTER on some keyboards).
8. Press CODE + (the letter) O. The overstrike symbol is displayed.

9. Move the cursor to end of text to be marked.
10. Press CODE + O again to end overstriking. If you are entering this code into existing text, press INSRT (CHAR ENTER).

    When the document is printed, the defined text is typed over by the character you indicated in the Variable Line Formats Menu. The overstrike character can be changed many times within a document. Just change the Document Status Menu value for the new character at the start of the line above each new set of overstrike codes.

Optional Text



ρA SEND THIS MEMO TO MR. LEIGH ONLYρ◀

◀

MEMORANDUM◀

◀

To: Mr. Leigh◀

From: Amos Frank◀

Date: April 17, 1985◀

◀

The subject of this memo is the rampant petty thievery of

Optional text is text that appears on the screen, but is not necessarily printed. You might use optional text for confidential information or an operator instruction. You can enter special codes to set off optional text anywhere in a document. Indicate in the Printer Status Menu whether or not the optional text should be printed. If optional text is not printed, text is adjusted automatically to prevent blank lines in the document.

Defining Optional Text

Instructions:

1. Move the cursor to where you want to type optional text. If you are entering the code into existing text, press INSRT (CHAR ENTER on some keyboards).
2. Press CODE + . (period). An optional text symbol appears.
3. Type the optional text.
4. Press CODE + . (period) again to indicate the end of the optional text.

   If you forget to type the second optional text code, no text following the first code will print unless the Printer Status Menu is set to Y to print optional text.

Printing Optional Text

Instructions:

1. Press CODE + F7 (Status Menus), then F8 to display the Printer Status Menu.
2. Move the cursor to Print Optional Text.
3. Type Y if you want the optional text printed. (The default setting is N for no.)

4. ENTER, then RETURN to display the document.
5. Print the document.

Stop Code

A stop code in a document does two things: indicates where the printer should pause and causes a message you've typed to appear on the screen. For instance, insert a stop code where you want to reposition the paper and create the message "Move paper down 6½ lines." The third document in a queue might require a special letterhead. The message "Use TR's letterhead" at the start of that document would be a helpful reminder.

Once you've responded to the message, press CODE + MSGS (ACK); printing resumes.

Entering a Stop Code

Instructions:

1. Move the cursor to the text where you want the printer stopped. When inserting a stop code into existing text, press INSRT (CHAR ENTER on some keyboards).
2. Press CODE + , (comma). A prompt is displayed asking you to type a message.
3. Type a message (up to 34 characters long) to be displayed when the printer halts at this point.
4. ENTER

Once a stop code has been entered, a format marker is inserted in the text. In Trace Mode place the cursor on this format marker to see the message displayed in the upper left corner of your screen.

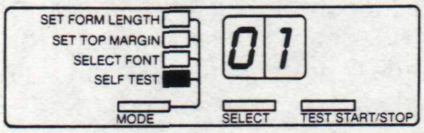
Printing with a Stop Code

Instructions:

1. Initiate printing either from foreground or background.

   When the printer sees the stop code, it halts and the screen displays your message.
2. Follow the instruction in the message.
3. Press CODE + MSGS (ACK) to continue printing.

Diagnostic Tests



You can help determine problems your 965 Printer might have by running the appropriate test before calling Field Engineering. Typically, you would report error codes that display in the control panel or discuss the results of a test with the Exxon Field Engineer to help isolate the problem. There are 11 tests and you can run all but two of them.

Diagnostic tests are run at the printer. You use the SELF TEST selection in the control panel to choose the number of a test, and the TEST START/STOP button to initiate and end each test. However, the procedures for performing the tests vary. (See "Running Diagnostic Tests.")

Description of Diagnostic Tests

01 Lamp and Bell Test verifies that all lights and alarms on the printer are working. During this test, the SELF TEST indicator flashes, all the printer lights come on, the alarm beeps and the number 88 appears in the display window. When the test is over, the two-digit display returns to 01.

02 Font Verification Test checks that the printer can print the currently selected font. During this test, the SELF TEST indicator flashes and the printer prints characters from the currently selected font.

03 Vertical Alignment Test verifies that paper indexing works properly. During the test, numerous sets of horizontal lines are printed.

04 Horizontal Alignment Test verifies that bidirectional alignments are working. During the test, vertical bars are printed from left to right for the first five lines and the remaining lines alternate left to right with right to left.

05 Jet Driver Test verifies that all ink jets are firing. During the test a dot matrix pattern is printed.

06 Paper Sensor Test verifies that all paper sensors are working. Paper sensors detect the presence or absence of paper in the printer to prevent printing on the platen. If the test detects an error, a two-digit number appears in the display window to identify the problem. When this test is initiated, the printer automatically inserts paper into the printer.

07 Loopback Test verifies the operation of an RS232C interface used in telecommunications. This test must be initiated by an EOSC Field Engineer.

08 Font Identification Test identifies the fonts installed in the printer by printing a list of the fonts and the printer firmware level.

09 Sheet Feeder Test addresses the automatic insertion and ejection of paper from the sheet feeder. This test is only for printers equipped with a sheet feeder. During this test you will be asked to specify the feed tray size.

10 Paper Sensors Engaged/Disengaged allows you to disengage the platen sensors, the carriage edge sensors or both if error code 98 is displayed on the control panel. Be sure to use this test to engage the sensors again to avoid printing on the platen. (Refer to the "Error Codes" section.)

11 Print Head Position Sensor Adjustment Test measures the ratios of the print head position sensor signals. This test is carried out by an EOSC Field Engineer.

Running Diagnostic Tests

Diagnostic Tests 01 and 03 through 08 are run the same way. There are different procedures for running Tests 02, 09 and 10. Tests 07 and 11 are to be run only by Exxon Field Engineering personnel.

While the system is running a diagnostic test, a number may appear in the display window. With the exception of Test 01 the number represents a specific problem; consult the list of error codes in this section. To clear the error code and stop a test, press TEST START/STOP.

The printer must be off line to run a diagnostic test. Press STOP to place the printer off line before initiating a test.

Running Tests 01, 03, 04, 05, 06, 07 and 08

Instructions:

1. Insert a sheet of paper 8½" wide in the printer unless you are running Test 06. (See the note at the end of this section.)
2. Lift the control panel cover.
3. Press MODE until the SELF TEST indicator lights.
4. Press SELECT to advance the two-digit display to the number of the test.
5. Press TEST START/STOP to begin the test. The SELF TEST indicator flashes.

6. Press TEST START/STOP to end the test. The SELF TEST indicator stops flashing. (Tests 05 and 08 will stop on their own.)

Notes:

- Test 01: The number 88 appears in the display window. This number is part of Test 01 and is not an error code.
- Test 06: Place the paper against the plastic paper holder, but do not insert the paper. If paper is inserted prior to this test, error code 46 is displayed. Press TEST START/STOP to clear the error code; remove the paper, place it against the paper holder and start the test over.
- Test 07: This test is for Exxon Field Engineering personnel. If you try to run the test, error code 49 is displayed. Press TEST START/STOP to clear the error code and stop the test.
- Test 08: Use this test to determine whether a font contains a Word Processing Character Set or a Standard Character Set, which has additional characters available. A 0 (zero) in the PAGE column of the test printout means the Standard Character Set is installed; 2 means the Word Processing Set is installed. Change the Print Wheel Setting in the Printer Status Menu from 0126 to 0129 to use the additional characters in the Standard Character Set. The printout of Test 08 also shows you which, if any, of the fonts for Application Character Sets are installed. (Refer to Section 19 in this manual.)

Running Test 02 (Font Verification)

Instructions:

1. Insert a sheet of paper 8½" wide in the printer.
2. Lift the control panel cover.
3. Press MODE until the SELECT FONT indicator lights.
4. Press SELECT to advance the two-digit display to the ID of the font you want to test.
5. Press MODE until the SELF TEST indicator lights.
6. Press SELECT to advance the two-digit display to 02.
7. Press TEST START/STOP to begin the test. The indicator flashes and the printer prints the characters from the selected font.
8. Press TEST START/STOP to stop the test.

Running Test 09 (Sheet Feeder Verification)

This test runs only when a sheet feeder is on the printer and is in active mode.

Instructions:

1. Lift the control panel cover.
2. Press MODE until the SELF TEST indicator lights.
3. Press SELECT to advance the two-digit display to 09.
4. Press TEST START/STOP to begin the test.
5. Look at the display window. The upper tray is indicated by an underscored c at the top left side of the display; the lower tray is shown by a c at the bottom. Press MODE while the test is running to select a tray to test.
6. Press SELECT to advance the right side of the display to the correct tray size as indicated by the assigned ID:

Assigned ID	Tray Size
1	8½″ x 11″
2	11″ x 8½″
3	210mm x 297mm
4	297mm x 210mm
5	8″ x 10½″
6	8½″ x 14″
7	7¼″ x 10½″
8	8½″ x 13″

7. Press TEST START/STOP to lock in the new size.
8. Press UPPER or LOWER on the sheet feeder to test automatic paper insertion for the selected tray.
9. Repeat Steps 5 through 8 to test another tray size.

Running Test 10 (Paper Sensors Engaged/Disengaged)

Instructions:

1. Lift the control panel cover.
2. Press MODE until the SELF TEST indicator lights.
3. Press SELECT to advance the two-digit display to 10.

This test will engage or disengage the paper sensors according to the following options:

Paper Sensor Options

0 — Engages all sensor functions (default setting)
1 — Disengages platen sensors
2 — Disengages carriage edge sensors
3 — Disengages both platen and edge sensors

4. Press TEST START/STOP to begin the test.

5. Press SELECT to advance the two-digit display to the number of the required option (0, 1, 2 or 3).

6. Press TEST START/STOP to end the test. The option displayed at the time TEST START/STOP is pressed will be in effect until that option is changed or the printer is powered off and then on again.

NOTE: If the paper sensors are disengaged, the printer may spray ink on the platen.

Error Codes

If the printer detects an error or malfunction, it beeps, the red ERROR light on the front panel flashes and the display window shows an error code number indicating the problem. Make a note of the error number and then press STOP to clear the code from the display. An error code might also display during a diagnostic test. In that case, press TEST START/STOP to clear the code.

Code	Explanation
01-25	The printer will be inoperable until the malfunction is corrected.
26-90	The printer is operable but requires some repair service.
42	Left edge, paper sensed.
43	Left edge, no paper sensed.
44	Right edge, paper sensed.
45	Right edge, no paper sensed.
46	Paper sensor error. (This error also occurs if paper is inserted before Test 06 is begun.)
47	Appears during Test 06 if paper was not sensed.
49	Appears if Test 07 is being conducted by someone other than Exxon Field Engineering Staff. Press TEST START/STOP to clear the error and stop the test.
88	Appears during Test 01; this is not an error.
90	Sheet feeder paper jam.
91	Sheet feeder Tray 2 is empty.
92	Sheet feeder Tray 1 is empty.
98	Out of paper. If you receive the 98 error code frequently, you can run Test 10 to disengage the paper sensors. Check the paper you are using. Thin paper or paper with dark lines, for example, may cause this code to be displayed.
99	Printer cover is open.

Error Messages

ERROR MESSAGE	**POSSIBLE SOLUTION**
Font not available, print anyway? [Type Y or N]	The font selected in the Font Selection Menu is not installed in your printer. Respond Y to print your document with the last font used. Respond N to cancel printing. Then, select a font from those available in your printer. Refer to the section on "Marking Fonts."
Printer needs attention, press RETURN to continue or RESET to abort.	Make sure the printer is turned on and is on line with your system (the green START/CONTINUE light will be lit). Then, RETURN to continue printing or RESET to cancel the print instruction.

Printer Maintenance

Replacing the Ink Cartridge

The ink cartridge contains enough ink to print approximately 2,000 pages. When there is enough ink to print about 30 more pages, the red INK LOW light on the front panel of the printer flashes. Use this as a reminder to replace the ink cartridge soon.

If you don't see the warning and the cartridge is emptied, the printer stops operating and the INK LOW light remains lit until you replace the cartridge.

Replacing the cartridge is quick and easy, but be careful not to get any ink on yourself, your clothes or any objects. Note the CAUTION below.

Instructions:

1. Lift the printer cover.
2. Remove the ink cartridge:
   a. Hold down the ink cartridge release lever (located to the right of the cartridge), firmly grasp the raised center part of the cartridge and lift the cartridge from the printer.
   b. Discard the old cartridge.
3. Insert a new cartridge, pressing it firmly into position until you hear it click into place.

   NOTE: The ink cartridge comes ready to insert. **DO NOT REMOVE** the orange rubber cap on the bottom of the cartridge.
4. Close the printer cover. The INK LOW light may remain lit for up to two minutes after you have replaced the cartridge.

CAUTION: A drop of ink may remain on the stopper on the bottom of the used cartridge. In such an event, or in the unlikely circumstance that a cartridge breaks, handle it carefully. Ink may also leak if the cartridge is inserted more than once.

Avoid contact with the ink. Wipe any ink from your skin with a dry cloth or paper towel. Then wash with soap and water.

If you get any ink in your eye, immediately flush the eye with water for 15 minutes. If irritation persists, consult your physician.

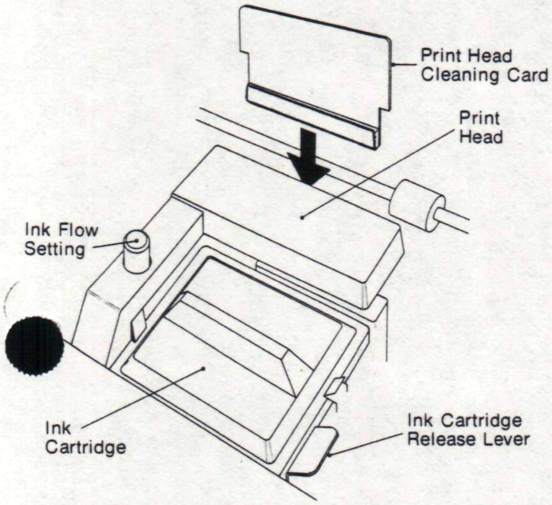
The ink may stain clothing or furniture.

THE INK SHOULD NOT BE INGESTED. Keep the ink out of the reach of children. If it is swallowed, call a physician. Your physician can be told the contents of the ink to assist in treatment by calling the Exxon Communication Center at 212/398-5390.

Cleaning the Print Head

The print head of your printer should be cleaned periodically. It is best to clean it twice per ink cartridge—once when you install the new cartridge, and once after approximately 1,000 pages of text have been printed. If the print begins to smear, clean the print head.

Instructions:



1. Remove the Print Head Cleaning Card from its protective pouch.
2. Apply no more than two sprays of cleaning fluid to the foam rubber strip along the bottom of the cleaning card.
3. Insert the card between the print head and the platen with the foam strip facing the print head, *not* the platen.
4. Leave the card in place for two or three seconds.
5. Remove and discard the cleaning card.

Cleaning the Platen

If the paper sensors on the printer are disengaged (see Diagnostic Test 10), ink may spray on the platen. Then, when paper is fed around the platen, the ink is absorbed by the paper.

Instructions:

1. Press STOP to place the printer off line.
2. Insert paper in the printer.
3. Press ADVANCE PAGE to eject the paper.
4. Repeat Steps 2 and 3 until the ejected paper shows no trace of ink.

Moving the Printer

Before moving the printer to another location, take these precautions to avoid printer malfunctions.

Instructions:

1. Power off the printer and allow the ink to cool for at least five minutes before moving the printer.
2. Do not tilt the printer more than 10 degrees at any time.
3. When shipping the printer, the printer must be specially packed. Contact Exxon Field Engineering personnel for proper packing instructions.

SECTION 8
FILING AND DISK MANAGEMENT

Once you begin to store documents on disks, the number of disks you accumulate will increase rapidly. To be able to retrieve documents quickly, you will have to create a filing system that is most effective and efficient for your office and best meets the needs of your company.

An effective filing system involves using all of the system operations for creating and revising documents, as well as using special index operations to print, read, delete, or copy documents as needed. Using disk space efficiently is also a necessary part of managing information.

The way disks are managed will best be developed by each individual company since all offices have different procedures and methods of handling information. There are, however, a few basic document and disk management procedures which should be implemented in organizing an effective disk filing system.

Document Management

The Exxon 500 Series Information Processor allows you to create a variety of documents. Once a document is created, it is then possible to revise the document in several ways. Management of these documents is important to utilize the maximum amount of disk space.

Creating a Document

Any type of document can be created including letters, memos, or reports. These are then stored with a name in the disk index. The document names should reflect the type of text that is included in the document so that it will be easy to identify.

Filing Documents

There are two ways to file your documents. Both are valuable methods that can be used for specific applications. The amount of disk space you have available can be affected by the storage methods you choose. The two methods include:

1. Update Document, Eliminate Original: With this method, the new document is overstored over the original text. This method should be used if there is no need to keep the original. The advantage of this method is that it provides more disk space for storage of other text.

2. Store Revised Version, Keeping Original: When storing text using this procedure, both the original and the revision are stored on the disk. The advantage of this method is that the original can be kept for other uses and it keeps a record of the revisions that are made. This method, however, will utilize more individual disk space.

Dividing a Document

If a document gets too long, it might be a good idea to divide the document into two separate documents. This will provide for easier and faster access to text during revisions. It will also help to identify different sections of a lengthy document. With the divide document command, you can split up the document giving each portion of text its own name. They can then be easily identified in the Index.

To Divide a Document

Instructions:

1. Read the document to be divided to the screen from the Index.
2. Position the cursor where the document is to be divided.
3. Press CODE + / (slash). All of the text to the left and above the cursor will become the new document. All of the text following the cursor will stay as the original document.
4. A message will appear to name the document. Type a document name (up to 34 characters).

   Note: *The disk drive can be specified for a dual drive system.*
5. Press ENTER. A document may be split into two or more parts by repeating the steps above.

   Note: RESET can be pressed to terminate the function.

Renaming Documents

A document can be renamed if you decide to change the name after it has been stored. The procedure is simple; the change is made through the First Line Formats Document Status Menu.

To Rename a Document

Instructions:

1. Read the document to the screen from the Index.
2. Position the cursor on the first line and press CODE + F7, then press F7 again to display the First Line Formats Document Status Menu.
3. Move the cursor to the DOCUMENT NAME selection and type the new name you would like (up to 34 characters with no asterisks or colons).
4. ENTER to register the new name in the Status Menu.
5. RETURN to go back to the text. This new name will now appear in the Index.

Copying a Document

It is advisable to make back-up copies of important documents. When you copy a document, it can be renamed or even copied onto another disk if you have a dual disk system.

To Copy a Document

Instructions:

1. Press F1 (Index Operations), then F12 (More).
2. Move the cursor to the document you want to copy. (Use CODE +↑ and CODE +↓ to move to other Index pages).
3. Press F8. Respond to the prompt with the name of the new document. This name can be up to 34 characters not including an asterisks or colon. If you want to copy the document to another disk, type the letter of the drive and a colon before the new name (b:Memo) or just ENTER to give it the same name. The same name *cannot* be assigned to more than one document on the same disk.
4. ENTER if a new name has been entered. A duplicate copy of the document will be stored under the new name you entered. The Index will remain on the screen so another document can be copied if required. When a document is copied, the Page Index is not copied with it. See Section 5 for more information about Page Index.

Deleting a Document

To utilize the disk space most efficiently, it is a good idea to delete documents from the disk that are no longer being used. This will free up additional disk space and clear up the Index from being cluttered with document names that are old and no longer required.

To Delete a Document from the Index

Instructions:

1. Display the Index on which the document is located.
2. Using the Cursor Control Keys, move the cursor to the name of the document you wish to delete.

   REMEMBER: On a multiple page Index, use CODE + ↓ and CODE + ↓ to move to a different page of the Index.
3. Press F6 (Delete Doc).
4. A message will appear on the screen to verify the deletion. Once you delete a document from the Index, the text will be removed *permanently*. Answer "Y" to delete the document from the Index.

   Note: Answer "N" if you do not want to delete the selected document.
5. The Index will remain on the screen so another document can be deleted if required.

Document Recovery

Occasionally, during editing, format patterns will become broken if certain format markers are deleted. This causes the system to be unable to identify certain format blocks. If this should occur, the system will alert you by placing a certain character into your text at the position where the format corruption occurred. This character is called a trident and it looks similar to a tulip (ψ).

Whenever you encounter a trident character in your text, a recovery procedure must be performed *immediately* to avoid further document corruption. The document recovery procedure is a method of searching for all trident characters. During the process, the tridents are deleted, along with any other format markers on that same line. The trident will be replaced with double question marks (??) so you will be able to identify where you must reformat your text. The coded characters, numbers, and symbols which were contained within that format marker will also be inserted into your text at this point.

After the recovery procedure is completed, a message will appear to indicate how many trident characters were found. You must then go back into your document and delete the coded format information and reinsert new formats where required. This can be done using the search function.

To Perform a Document Recovery

Instructions:

1. Move the cursor to line 1 on the first page of your document.
2. Press CODE + F12 (UTILITIES).
3. The utilities prompt line will appear on the screen, press F7 (DOC RECOVERY).
4. A message will appear to remind you to position the cursor on line 1. The recovery program will then begin and the entire document will be scanned for lines where a format block has been corrupted and a trident appears.
5. After the recovery has been completed, a message will appear to indicate how many tridents were located within the document and replaced with the double question marks (??). Press RETURN to continue.
6. All of the question marks must now be searched for and replaced with valid formats. A search can be performed to locate them. Position the cursor on line one of the document to begin the search.
7. Access the search function by pressing F2.
8. Press F8 to *initiate an exact search.*
9. Press F5 (Enter Search) to enter the search string.
10. Type the search string which is two question marks "??", and press ENTER.
11. Begin the search by pressing F2 (Search). The cursor will move to the first occurrence of the question marks.
12. Press RESET to exit the search function.
13. Delete all extra characters, numbers, and symbols that have been inserted into the text.
14. Reformat the text as required.
15. Continue to follow Steps 7-14 through the remainder of the text to locate and reformat the entire document.

Disk Management

The use of a magnetic disk system presents new opportunities for filing and retrieving information within your office.

The disks must be prepared for use; then, they can be copied entirely for the filing system if required. The organization of information on the disk is important to be able to retrieve it quickly.

Preparing the Data Disk

On a dual disk drive system, before the data disk can be used, it must be specially formatted and prepared by the system. This is because the disk is totally smooth like a sheet of metal, incapable of storing information. When you prepare a *data disk*, the system creates tracks and sectors, similar to the grooves on a record album, that store information. All *new* disks must go through this process, or you will not be able to read or record any information.

To Prepare a Disk

Instructions:

1. Insert the new disk into the right disk drive.

   Caution: BE SURE this is a *brand new disk*. If a disk with existing text already stored is used, all of the documents on that disk will be destroyed!

2. Hold down the CODE key and press F12 (Utilities).
3. Press F10 (Disk Format) to prepare the disk.
4. Enter the letter "b" for the drive where the new disk is located.
5. Press ENTER.
6. Type the name of the new disk. The name can be up to 11 characters including the letters A through Z, and the numbers 0 through 9 with *no* spaces, punctuation or special coded characters.
7. Press ENTER.

   Note: Press RESET to terminate the process.

8. The system will begin formatting the disk and the red light on the disk drive you are preparing will go on.
9. When the process is complete, another message will appear asking that you open the drive door for the new disk you are preparing, then close it again, and press RETURN to continue.

   When the disk preparation has been completed, documents can be stored on the data disk.

Copying Disks

On the dual disk drive units, the entire contents of a disk can be copied onto another disk if required.

You may want to make duplicate copies of disks for security reasons, such as for protection in case of fire or theft, or to send information to another location. Since so much information is stored on a disk, it is always a good idea to keep duplicate copies as a back-up in case of an emergency.

To Copy a Disk

Instructions:

1. Press CODE + F12 (Utilities).
2. Press F9 (Disk Copy).
3. Place the disk to be copied in the left disk drive. (Disk Drive a).

   Note: This would be the *only* time the Software Disk is ever removed in the situation where you are copying a Data Disk.
4. Place a disk in the right disk drive. (Disk Drive b).

   Note: If text already exists on this disk, it will be replaced with the copied text. BE SURE THE DISKS ARE IN THE CORRECT DRIVES FOR THE COPY PROCESS.
5. Press RETURN. The system will now begin formatting the new disk to prepare it for the text to be copied.
6. When the message appears on the screen, open the new disk drive door on Drive "b", then close it again.
7. Press RETURN. The copy process will begin and the red lights on the disk drive will flash. Numbers will scan in the left-hand corner of the screen indicating the sectors of the disk that are being copied.

   Caution: If the copy process should stop and an error message appears at the top of the screen, there could be a bad track on the disk. Begin the process again. Be sure a software disk has been reinserted.
8. When the disk copy procedure has been completed, put the system disk back in the left drive (if it is not there already). Press RETURN and continue on with your work at this time.

Erasing a Data Disk

When the information on a disk is no longer needed, the disk can be erased completely and then reused. The procedure for erasing a disk is the same as the procedure for preparing a disk, which was presented on the previous page. During the DISK FORMAT function, all information presently on the data disk will be erased. Since the disk already contains tracks and sectors, the system will not have to recreate them.

Note: Be certain that the disk you are erasing does not contain documents that will be needed again, since the deleting procedure is irreversible.

Disk Capacity

When the disk gets full, no more text will be able to be stored unless you delete documents that are no longer being used on that disk, or begin storage onto a new disk. The system will indicate the amount of text remaining on the disk through the Index. This gives the percentage of space which still remains available for storage on the disk. Be sure to always check how full the disk is before beginning a new document. If in doubt on the length of the new text you will be inputting, begin a new disk for that text.

Setting Up a Filing System

Setting up a filing system will enable you to retrieve information quickly when it is needed. This can be done by implementing a cataloguing system to keep track of disk contents and document location. Once the catalogue system is set up, you need only maintain the catalogue to keep it up-to-date as new information is stored.

Components of a Filing System

An effective filing system for documents includes the following components:

1. Data Disk: Has the capacity to store up to 300 pages of text with 2000 characters per page (combination Software/Data Disks on single-drive units has less capacity).

2. Disk Indexes: Two copies should be printed for each disk. Be sure to print new copies each time new documents are added, deleted, or revised.

3. File Cabinet: Use either a standard file cabinet or one made specially for disks to keep disks in when not in use.

4. Disk Register: List of disks contained in disk file and kept in a three-ring binder. Also contains one copy of the Index for each disk.

5. Document Register: Listing of documents by subjects or classification. An example would be documents for a particular project, client, author, manager, or topic. Next to each title, list the number of the disk on which it is recorded.

Using the Filing System

Instructions:

1. Number each disk when you first use it.
2. Print two copies of the Index for each disk. Number it with the same number as the disk. Make new copies each time changes are made to the disk to keep the file updated and current.
3. File one copy of the Index with the disk in the disk file.
4. File the second copy of the Index in the Disk register. Make sure the disk number is listed in the register.
5. Add the name of each document to the document register as needed. Cross-index documents to the disk register by disk number.

Changing System Default Settings

The Status Menus and Format Line have certain default values which are set by the system. Each time you load the software, these preset standard values are automatically in effect and will remain so until you wish to change them.

On a dual disk system, there is also a default value for the drive to be first accessed. The standard default value automatically accesses the Index on Disk Drive a when software is loaded.

These standard default values have been selected to meet the most common needs of operation. However, in certain situations, these default settings are not common to special applications, and other values are used more frequently. One example of this would be when the majority of the documents that you type are on legal paper. In this case, the paper length would not be at 66 lines as is the standard default value, but at 84 lines. By changing the default setting on the software to 84 lines, you would save yourself from making this selection each time you begin a new document.

The default values can be changed by one operation. At that time, all format line values, status menu values, and drive to be accessed are set to the new default settings. These new settings will serve as the permanent default values for the software disk until new default values are reset again.

To Change Default Values

Instructions:

1. Clear the screen.
2. Set the left margin, right margin, and tab settings to the values you wish to be the default formats.
3. Place the cursor in the HOME position on the first line of the screen.
4. Press CODE + F7 (Status Menus).
5. Press F7 (Document Status Menu).
6. Change the default values by moving the cursor to the setting you want to change, typing in the new value, and then pressing ENTER.
7. After changing all of the values you wish to change, press RETURN.
8. Press CODE + F7 again.
9. Press F8 to access the Printer Status Menu.
10. Change the appropriate default values as required.
11. Press RETURN to return to the document.
12. Be sure the Index on the drive you wish to be the default drive is accessed (Dual Drive Models only).
13. Now press CODE + F12 (Utilities).
14. Press F11 (Set System Default).
15. A prompt will appear. Press RETURN to continue.
16. Another prompt will appear; press RETURN again. Now, you have changed the default settings, and each time you load the software into the system, your new settings will be in effect.

Program Load

You can load special program disks automatically without turning the system on and off. The program load operation is part of the applications function.

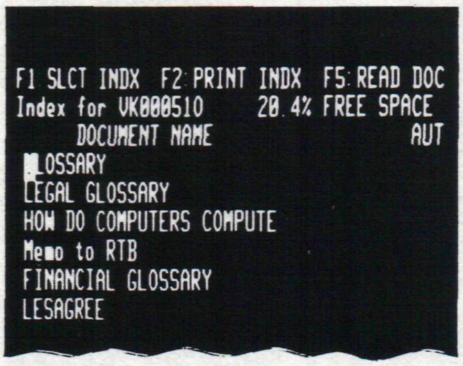
To Use Program Load

Instructions:

1. Be sure the screen is clear and all open documents have been stored or deleted from the screen.
2. Press F10 (Applications). The function line will appear at the top of the screen.
3. Press F8 (Program Load).
4. Confirm your selection: Type Y, or N to exit the process.

   Note: If you wish to discontinue this process, type an "N."
5. Insert the valid program disk to be loaded and RETURN.
6. Continue on with the application you are performing.

SECTION 9
GLOSSARY



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F1 SLCT INDX  F2:PRINT INDX  F5:READ DOC
Index for VK000510     20.4% FREE SPACE
     DOCUMENT NAME                  AUT
 GLOSSARY
 LEGAL GLOSSARY
 HOW DO COMPUTERS COMPUTE
 Memo to RTB
 FINANCIAL GLOSSARY
 LESAGREE
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A special glossary feature is one of the many system features to improve efficiency and aid in entering text.

The glossary is a special pre-recorded document named GLOSSARY *on the software disk which is available for storage of certain text or* formats that are often tedious to type or used repetitively. Other glossary documents can also be created to be used for different applications.

When text is entered in the glossary, a short, generally one character abbreviation is assigned to the text. Once the glossary term is entered, all you have to do to redisplay the text is type the short abbreviation, then press the GLOSS key. The system will quickly bring that text segment to the screen.

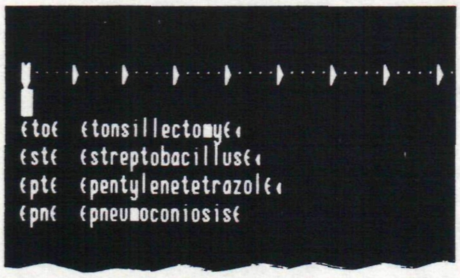
The glossary feature can be a real timesaver, especially with repetitive text strings or long sections of text which are used frequently. Some of the glossary applications include:

- To insert technical words that must be frequently looked up.
- To insert frequently used paragraphs such as paragraphs used in contracts or letters.
- To recall formats and tabs so that time-consuming formats, such as special columns do not have to be set over and over again.
- To create and utilize several different specialized glossaries such as for legal or medical terms.

Saving/Recalling Text from the Glossary

Glossary text names should be short to utilize the glossary feature most efficiently. It is recommended that you limit the name to one or two characters, however, up to 34 characters can be used if required. No punctuation can be contained in the name.

It is a good idea to print a copy of each glossary document to keep handy to remember the abbreviations for each segment of stored glossary text. Hand-write additions or periodically reprint the glossary as required.



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€to€  €tonsillectomy€◂
€st€  €streptobacillus€◂
€pt€  €pentylenetetrazol€◂
€pn€  €pneumoconiosis€
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To Save Text in the Glossary

Instructions:

1. Type the term or text to be saved in the glossary.

   Note: If format markers are to be stored in the Glossary, the Trace Mode must be accessed.

2. Press F4 (Block Operations).
3. A message will appear. Place the cursor on the first character of the text to be stored in the glossary.
4. Press ENTER.
5. Place the cursor to the right of the last character of the text to be inserted in the Glossary.
6. Press ENTER.

   Note: A Glossary term cannot exceed the buffer limit in size. If it does, the system will issue the prompt—"Block marker(s) not found—may be on disk." Press RETURN to continue.

7. Press F6 (Store Glossary) to store this term in the glossary.
8. A prompt will appear. Type the name or abbreviation you want to use to recall the glossary term. This abbreviation cannot contain punctuation.
9. Press ENTER. The text is now recorded in the glossary and can be read to the screen at any time using the term you entered.

To Read Text From the Glossary

Instructions:

1. Type the name or abbreviation for the glossary text.
2. Press the GLOSS key located on the Screen/Numeric Keypad. The text will appear on the screen.
3. Use the Adjust operation (Section 5) to obtain proper text format if needed.

Multiple Glossaries

Only one glossary is initially included on the software disk, so if you want to utilize others, you must create the other glossary documents yourself. When using multiple glossaries, the same names and abbreviations can be used over again in the different glossaries. The glossary where the terms are to be drawn from must then be specially accessed.

To Create Additional Glossaries

Instructions:

1. Be sure the screen has been cleared.
2. Press STORE. A prompt will appear for you to name the document.
3. Type the name for the glossary document. The name can contain any uppercase or lowercase characters, except an asterisk (*) or colon(:). For example, Glossary Two, Legal Terms, etc. can be entered.

   Note: On a dual drive system, if the Glossary is to be stored on the other drive, the drive letter and a colon should come before the document name.
4. Press ENTER. The glossary name will be inserted onto the disk Index and ready for the entry of text.

Using a Different Glossary Document

The original glossary will be used when the system is first powered on. When you want to use one of the other glossaries, it must be specifically accessed. Once a glossary has been accessed, that glossary will remain in effect until another one has been selected.

To Use a Different Glossary Document

Instructions:

1. Display the Index on the disk that contains the glossary you want to use.
2. Press F12 (MORE) to display the second line of the Index prompts.
3. Use the cursor direction keys to position the cursor on the name of the glossary document you wish to use. CODE + ↓ and CODE + ↑ can be used to move to other pages of the Index.
4. Press F11 (Select Glossary). All glossary terms and abbreviations will now be drawn from this particular glossary as well as stored in this glossary until you select another glossary or turn the power on again.
5. The Index will remain on the screen. Press RESET to return to the typing screen.

Editing the Glossary

Since the glossary is stored like any other document, it can be edited and revised just as you would a memo or a report. If you discover that there is an error in any of the stored glossary text, simply edit it and restore the glossary document.

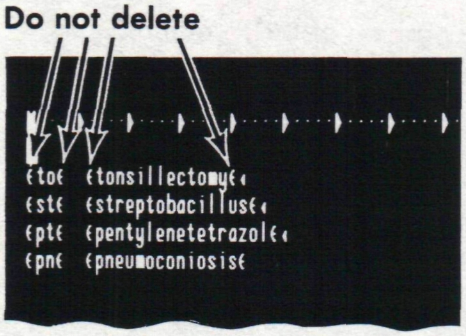
To Edit the Glossary

Instructions:

1. Display the Index which contains the glossary you wish to edit on the screen.
2. Use the cursor direction keys to move the cursor to the glossary document name that contains the text you want to edit. CODE + ↓ and CODE + ↑ can be used to move to other pages of the Index.
3. Press F5 (READ DOC).
4. The glossary document will appear on the screen. Make any necessary editing changes.

   Caution: The glossary term appears between two field codes. DO NOT delete these field codes unless you want to delete the entire term from the glossary. If one is accidentally deleted, press CHAR ENTER and reinsert it by pressing CODE + F.
5. Press STORE.
6. The message will appear to store or update the original. Answer "Y" to update the original. The edited glossary will now be stored.
7. After making an editing change to the glossary, this glossary must be reaccessed. Press F1 to display the Index containing this glossary.
8. Using the cursor direction keys, move the cursor to the glossary document which was just edited.
9. Press F11 (Select Glossary). The glossary with the new edited changes will be in effect.

   Remember to print out a new copy of the glossary for your records.



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€to€  €tonsillectomy€◂
€st€  €streptobacillus€◂
€pt€  €pentylenetetrazol€◂
€pn€  €pneumoconiosis€
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Storing Formats in the Glossary

Not only can text and terms be saved in the glossary, but formats and tab settings can be saved also. This eliminates the repetitive setting of tabs and formats that are frequently used. All trace mode markers with a term, such as centering, become a part of the term and are automatically stored in the glossary with them. Other formats, that are separate from the words, such as margins and indents must be entered into the glossary individually by blocking and storing the format marker representing them.

To Store a Format in the Glossary

Instructions:

1. Read the document with the format marker to the screen.
2. Press TRACE to show the position of the format markers.
3. Move the cursor to the format marker you want to save.
4. Press F4 (Block Operations).
5. Answer any storage messages if required.
6. Be sure cursor is positioned on the format marker and press ENTER.
7. Move the cursor to the right of the format marker and press ENTER.
8. Press F6 (Store GLOSS).
9. Type the letter or abbreviation you want to represent this format.
10. Press ENTER. This format is now stored in the glossary and can be recalled as previously instructed.
11. Press the TRACE Key to exit the trace mode.

    Note: The guidelines for naming and organizing glossary text also apply for glossary formats. However, edit techniques *do not*. It is best to delete incorrect formats stored in the glossary, then recreate and restore them.

SECTION 10
DOCUMENT ASSEMBLY

The document assembly feature will be helpful with any repetitive letters or documents. With document assembly, sections of text are stored to later assemble together to construct a single document.

With the 500 Series, there are two document assembly methods available to use for your individual applications. The first method uses the basic storage process with recall from the Index, while the second method of document assembly uses Records Processing for organization and implementation. The method to choose will depend on the specific applications and individual preference to procedures. This section will describe both methods.

Basic Storage Method

The standard text you store can be different paragraphs, detailed sections, openings and closings to letters or simply a few words. With the basic storage method, these sections will be stored on the disk as separate documents, then they can be assembled as needed to construct a single document.

Using these procedures, there are two types of text segments you can store for assembly into a document.

1. **Standard Paragraphs:** Allows you to assemble contracts, legal documents, specifications, etc.
2. **Personalized Standard Paragraphs:** Allows you to insert customized information into any standard paragraph.

You can use any combination of these text segments to assemble a document with repetitive information.

Storing Standard Text

Before storing the standard text, decide on the quantity of text to be stored. The text may be any length. For example, a salutation, standard paragraph or introductory sentence can be individually stored. These segments, however, should be kept as short as possible, because it is easier to assemble text rather than delete text not needed for a particular document.

The standard text segments will assume the format characteristics of the document it is called into. The text segment, however, can have its own format if desired. If a special format (such as margins, pitch, or line-spacing) should be stored with the text segment, the format values must be set on line 2 of the screen. Then, line 1 must be deleted before storing the standard text segment.

Once all of the text segments have been stored, a copy of each should be printed out for your records.

Lessee has deposited with Lessor the Security Deposit stated above for the performance of all covenants and agreements of Lessee hereunder. Lessor may apply all or any portion thereof in payment of any amounts due Lessor from Lessee. Upon termination of the lease and full performance of all matters and payment of all amounts due by Lessee, so much of the security deposit as remains unapplied shall be returned to Lessee. This deposit does not bear interest.

+

Lessee has examined and knows the condition of Premises and has received the same in good order and repair except as herein otherwise specified, and no representations as to the condition or repair thereof have been made by Lessor or his agent prior to, or at the execution of this lease, that are not herein expressed or endorsed hereon; and upon the termination of this lease in any way, Lessee will yield up Premises to Lessor in as good condition as when the same were entered upon by Leesee, ordinary wear and tear only excepted.

To Store Standard Text

Instructions:

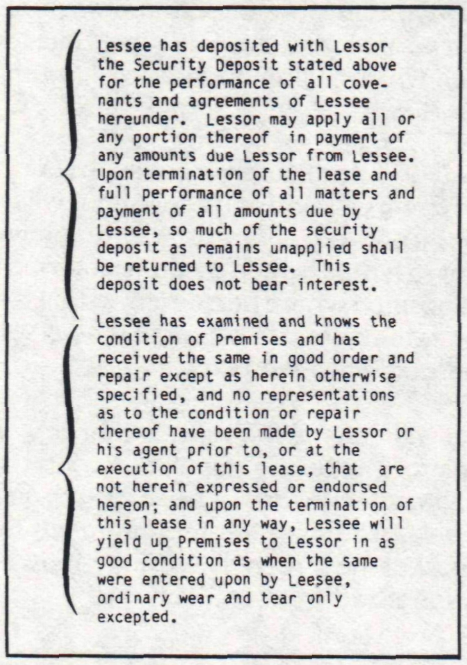
1. Clear the screen.
2. If a special format is required, set the format on line 2 of the screen. Then delete line 1. (See specific section for detailed instructions on format change required.)
3. Type the standard text for the section to be assembled into a document.
4. Press STORE.
5. Type a name for the section, using only up to eleven (11) characters with *no* spaces or punctuation.

   Note: If the section is to be stored on another disk drive, type the drive letter and a colon prior to typing the name.
6. Press ENTER to store the text.
7. Repeat steps 1-6 for each standard section you store.

The STORE BLOCK function can also be used to store standard text segments. Just access the Block function by pressing F4. Then, define the block of text to be stored and press F5. Type a name for the text segment (up to 11 characters), and press ENTER to store the block. (See Section 4 for detailed instructions.)

Assembling Standard Text

When you have stored all of the sections of standard text, they can be assembled in numerous different ways to construct an entire document. After the sections are assembled, the newly created document can either be stored or printed as required by the particular application.



Lessee has deposited with Lessor the Security Deposit stated above for the performance of all covenants and agreements of Lessee hereunder. Lessor may apply all or any portion thereof in payment of any amounts due Lessor from Lessee. Upon termination of the lease and full performance of all matters and payment of all amounts due by Lessee, so much of the security deposit as remains unapplied shall be returned to Lessee. This deposit does not bear interest.

Lessee has examined and knows the condition of Premises and has received the same in good order and repair except as herein otherwise specified, and no representations as to the condition or repair thereof have been made by Lessor or his agent prior to, or at the execution of this lease, that are not herein expressed or endorsed hereon; and upon the termination of this lease in any way, Lessee will yield up Premises to Lessor in as good condition as when the same were entered upon by Leesee, ordinary wear and tear only excepted.

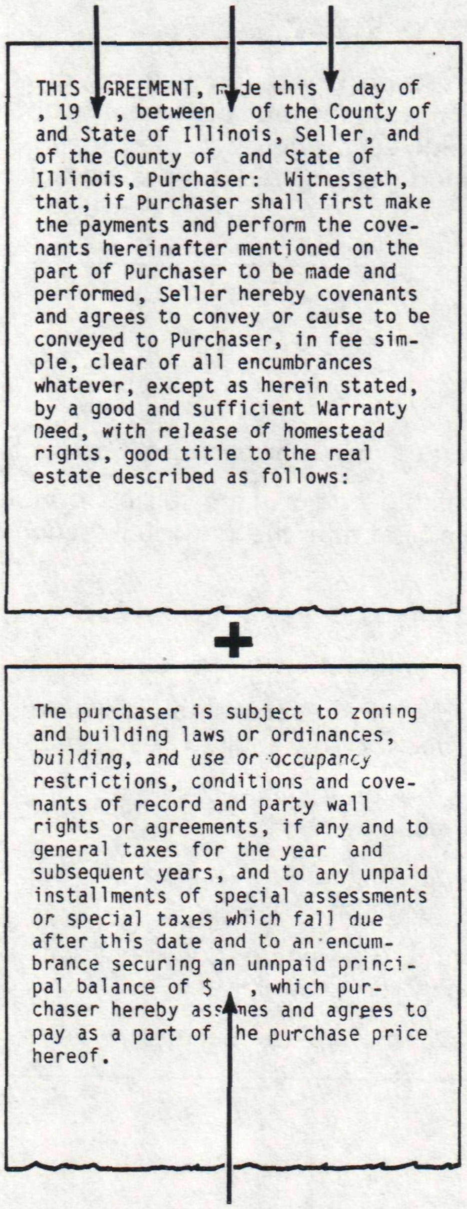
To Assemble Standard Text

Instructions:

1. Clear the screen.
2. Set the margins and format to your specifications (Section 5).

   Note: If certain sections contain their own specialized formats, the original format must be reset after the individual section is read to the screen.
3. Type the name of the section to appear first.
4. Press READ and the section will appear on the screen.

   Note: Hyphenation decisions may be requested as text is read onto the screen. Make the decisions as required (see Section 5).
5. Continue and repeat steps 2-4 for each pre-stored section you want to insert in the document.
6. When the document is complete, move the cursor to the top of the document and press F7 (Adjust).
7. Press F8 (Document Adjust). The entire document will be adjusted to the formats that were initially set.
8. Store and/or print the newly assembled document.



THIS AGREEMENT, made this day of , 19 , between of the County of and State of Illinois, Seller, and of the County of and State of Illinois, Purchaser: Witnesseth, that, if Purchaser shall first make the payments and perform the covenants hereinafter mentioned on the part of Purchaser to be made and performed, Seller hereby covenants and agrees to convey or cause to be conveyed to Purchaser, in fee simple, clear of all encumbrances whatever, except as herein stated, by a good and sufficient Warranty Deed, with release of homestead rights, good title to the real estate described as follows:

+

The purchaser is subject to zoning and building laws or ordinances, building, and use or occupancy restrictions, conditions and covenants of record and party wall rights or agreements, if any and to general taxes for the year and subsequent years, and to any unpaid installments of special assessments or special taxes which fall due after this date and to an encumbrance securing an unpaid principal balance of $, which purchaser hereby assumes and agrees to pay as a part of the purchase price hereof.

Storing Personalized Text

For some applications, you may want to store a section of text that will include different personalized text portions. This may include such things as place, date, etc., which will change each time this section of text is used.

Personalized text can be entered and stored in such a way that each time it is read to the screen, the system will stop at the locations where the personalized information should be entered. A prompt will appear to tell the operator what to type. This can be done entering a merge code (CODE + m) at the position where personalized text is to be entered. A merge code notifies the system to pause so the personalized information can be "merged" into the text.

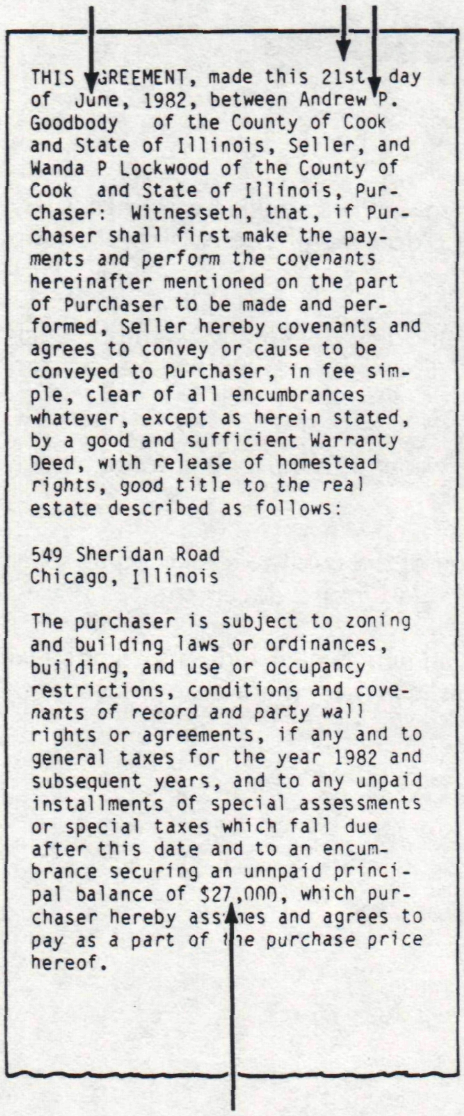
The personalized text segments will assume the format characteristics of the document it is called into. The text segment, however, can have its own format if desired. If a special format (such as margins, pitch, or line-spacing) should be stored with the text segment, the format values must be set on line 2 of the screen. Then, line 1 must be deleted before storing the personalized text segment.

To Store Personalized Text

Instructions:

1. Be sure the screen is clear.
2. If a special format is required, set the formats on line 2, then delete line 1. (See specific section for detailed instructions on format change required.)
3. Type the text up to the point where the personalized text is to be inserted.
4. Press CODE + m to enter a merge code.
5. A prompt will appear on the screen to type a message. Type a few words to tell what information should be inserted at this point. This will act as a cue when reading this section to the screen. Some examples would be, "Type product name," Type number," etc. (The brief description cannot exceed 34 characters.)
6. Press ENTER to store this message.
7. Type a 0 (zero) for the field number and press ENTER again. A merge code (λ) will appear at this position.
8. Continue to type to the next point of insertion for personalized text, then repeat steps 3-5.
9. When you have completed typing the text, press STORE.
10. A prompt will appear for you to type a name. Type a name for the section using only up to eleven (11) characters for the name.

    Note: To store the text on another drive (dual models only), type the drive letter and a colon before typing the name.
11. Press ENTER to store the text.
12. Repeat steps 1-11 for each personalized section of text.



THIS AGREEMENT, made this 21st day of June, 1982, between Andrew P. Goodbody of the County of Cook and State of Illinois, Seller, and Wanda P Lockwood of the County of Cook and State of Illinois, Purchaser: Witnesseth, that, if Purchaser shall first make the payments and perform the covenants hereinafter mentioned on the part of Purchaser to be made and performed, Seller hereby covenants and agrees to convey or cause to be conveyed to Purchaser, in fee simple, clear of all encumbrances whatever, except as herein stated, by a good and sufficient Warranty Deed, with release of homestead rights, good title to the real estate described as follows:

549 Sheridan Road
Chicago, Illinois

The purchaser is subject to zoning and building laws or ordinances, building, and use or occupancy restrictions, conditions and covenants of record and party wall rights or agreements, if any and to general taxes for the year 1982 and subsequent years, and to any unpaid installments of special assessments or special taxes which fall due after this date and to an encumbrance securing an unnpaid principal balance of $27,000, which purchaser hereby assumes and agrees to pay as a part of the purchase price hereof.

The STORE BLOCK function can also be used to store personalized text segments. Just access the Block function by pressing F4. Then, define the block of text to be stored and press F5. Type a name for the text segment (up to 11 characters), and press ENTER to store the block. (See Section 4 for detailed instructions.)

Assembling Personalized Text

When assembling personalized text, first read the text segment to the screen. The cursor will stop for you to type in the appropriate personalized additions.

To Assemble Personalized Text

Instructions:

1. Clear the screen.
2. Set the margins and format to your specifications (Section 5).

   Note: If certain sections contain their own specialized formats, the original format must be reset after the individual section is read to the screen.
3. Type the name of the section to appear first in the document.
4. Press READ. The text you have stored will appear on the screen.

   Note: Hyphenation decisions may be requested as the text is read to the screen. Make the decisions as required (see Section 5).
5. The cursor will stop at the position where the personalized text is to be typed. A message will appear at the top of the screen specifying the information you should type.
6. Type the appropriate text.

   Note: To cancel the assembly of the text, press RESET.
7. Press ENTER. The cursor will move to the next position in the text where personalized information should be inserted.
8. Repeat steps 6 and 7 each time the cursor stops.
9. Continue and repeat steps 3-7 for each pre-stored section you want to insert in the document.
10. When the document is complete, move the cursor to the top of the page and press F7 (Adjust).
11. Press F8 (Document Adjust). The entire document will be adjusted according to the formats set within the document.
12. Store and/or print the newly assembled document.

Assembling Various Text Segments

Both personalized and standard text can be assembled into one document. The specific procedures should be followed for the type of text segment that is to be included in the document.

Records Processing Method*

***Note:** Records Processing is explained in detail in Section 15. Only the instructions for this particular document assembly application are included in this section.

Using the records processing method of document assembly, each text segment will be set up as a field of information to be assembled together when required.

To assemble text in this manner, two things must be created, which include:

1. **Text Segment List:** A list of all of the available text segments or paragraphs that can be assembled into a document.
2. **Assembly Document:** A document which indicates what text segments are to be assembled together to create a document.

Creating the Text Segment List

To include all of the variable text segments required for the document assembly, a list of these variable portions of text is created.

Each text segment in the list is considered a field of information and is set up accordingly. This list can then be printed so the available text segments can be easily referenced when required.

To Create a Text Segment List

Instructions:

1. Clear the screen.
2. Type a label for the text segment. Begin with one (i.e., Para 1, Segment 1, Text 1, Assembly 1, etc.). Once you decide on a label continuously use this throughout the list and number consecutively.
3. Press RETURN.
4. Enter a field mark by pressing CODE + f.
5. Set any special formats for the text segment if required.
6. Type the text segment.
7. Enter another field mark by pressing CODE + f again. The text will be surrounded by special field marks ({).
8. Press RETURN.
9. Type the next label. This should follow consecutively from the last one you typed (i.e., Para 2, Segment 2, Text 2, Assembly 2).
10. Press RETURN.
11. Enter a field mark by pressing CODE + f.
12. Make any format changes if required and type the next text segment.
13. Enter another field mark by pressing CODE + f again.
14. Press RETURN.
15. Continue to follow steps 9 through 14 until you have entered all of the text segments.
16. After you have entered the last text segment, press RETURN and enter a required page break by pressing CODE + R.
17. If a storage prompt has not appeared yet, press STORE to store the list.

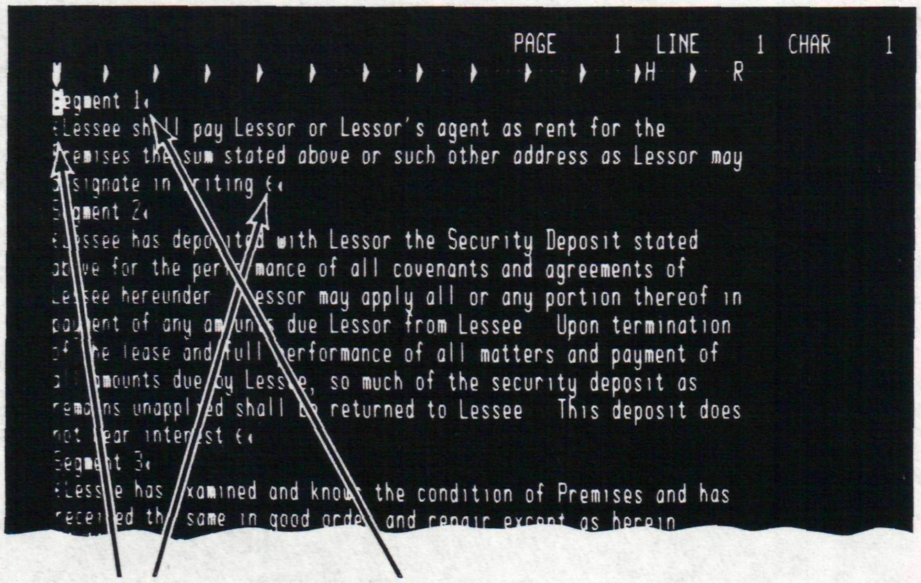
(**Continued on page 10**/8)

18. A prompt will appear to name the document. Type a name for the list.

    Note: If you wish to store the segment on another drive (dual drive models only), type the drive letter and a colon before typing the name.

19. Press ENTER. The list is now stored.

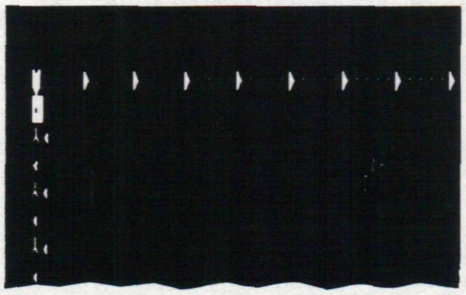
    Be sure to print out a copy of the list for your records.



```
                                            PAGE    1  LINE    1  CHAR    1
▼  ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸   ▸H  ▸  R
Segment 1‹
€Lessee shall pay Lessor or Lessor's agent as rent for the
Premises the sum stated above or such other address as Lessor may
designate in writing €‹
Segment 2‹
€Lessee has deposited with Lessor the Security Deposit stated
above for the performance of all covenants and agreements of
Lessee hereunder  Lessor may apply all or any portion thereof in
payment of any amounts due Lessor from Lessee  Upon termination
of the lease and full performance of all matters and payment of
all amounts due by Lessee, so much of the security deposit as
remains unapplied shall be returned to Lessee  This deposit does
not bear interest €‹
Segment 3‹
€Lessee has examined and knows the condition of Premises and has
received the same in good order and repair except as herein
```

Creating the Assembly Document

The assembly document is used to tell the system what particular text segments are to be assembled from the list and how they are to be assembled. This document is created very simply by using merge codes to indicate which text segments are to be assembled and where. Many assembly documents can be created and stored for various applications that are used frequently. Also, headers and footers can be entered in the assembly document to be included in the final assembled document.



To Create an Assembly Document

Instructions:

1. Clear the Screen.
2. Set the margins and formats to your specifications.
3. Enter a header and/or footer if desired (see Section 6), or press RETURN to leave 1 line at the top of the screen.
4. Press CODE + M.
5. A prompt will appear for you to type a message. Type information about the segment to be inserted. Up to 34 characters can be typed.
6. Press ENTER.
7. Type the number of the text segment which is included in the label. This is also called a field number. It is *very* important that the number is correct, or the wrong text segment could be assembled.
8. Press ENTER and a merge code will appear on the screen.
9. Press RETURN and continue to add as many returns as you wish to appear between the segments to be assembled.
10. Continue to follow steps 4-9 for each segment to be inserted into the document.
11. When you are finished, press STORE.
12. Enter a name for the assembly document (up to 34 characters with no * or :) and press ENTER.

    Note: The assembly document must be on the same disk as the segment list. If on another drive (dual drive system only), enter the drive letter and a colon before the document name.

Assembling Text

Once the list and the assembly document have been created, the text can be assembled using the Records Processing merge operation.

To Assemble Text

Instructions:

1. Be sure the Index accessed contains both the segment list and the assembly document (dual disk drive models only).
2. Press F10 applications.
3. Press F10 again to select Records Processing.
4. Select the type of merge you want. (Each is explained in detail in Section 14.)

   F6 Screen Merge
   F7 Print Merge
   F8 Auto Merge
5. When the prompt appears, answer "N" to selective merge if using a Model 520.
6. A prompt will appear to select the Assembly Document. Move the cursor to the Assembly Document and press F4.
7. A prompt will appear to select the list. Move the cursor to the Text Segment List and press F4 again.
8. Proceed with the instructions that are required for the specific merge operation that you selected in Step 4 (see Section 14).
9. A message will appear that the merge has been completed. Press RETURN to either see the assembled document on the screen or print it out depending on what you selected.

   Note: If a certain text segment had its own individual format, the original format must be inserted after that segment to return to the original format for the remainder of the document.

SECTION 11
COLUMNS

Using the special column function, statistical and other column organization will be simplified. For all columns typed and formatted using the TAB key, the columns mode functions offer the ability to:

- Move a Column
- Exchange Columns
- Insert a Column
- Delete a Column
- Clear a Column

Each of these column operations will be explained in detail in this section.

Column Formatting

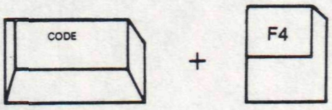
Before the column operations can be used, the columns must be properly formatted. All of the columns must be entered by tabbing to a preset tab setting for each column. Any type of tab (standard, character aligned, flush right, or centered) can be used. Just be sure the TAB key is *always* pressed to move to that position and a tab character precedes the column.

When using special coded characters, such as underlining, super/subscripts, or bold, the visual format of the columns may be distorted as each coded symbol takes up one character space on the screen. These coded characters may be temporarily removed from the screen so that you may view the columns formatted properly by using the special trace mode. This trace mode is accessed by pressing CODE and the TRACE key, located on the Screen/numeric keypad, to see the proper alignment of the columns. Once you have viewed the columns properly aligned, press CODE + TRACE again to return to normal screen operations.

These coded characters may also cause premature word wrap during the entry or edit of columnar text. The text line can be reassembled by using the adjust function (Section 4).

Identifying the Columns

The column functions are accessed by pressing:



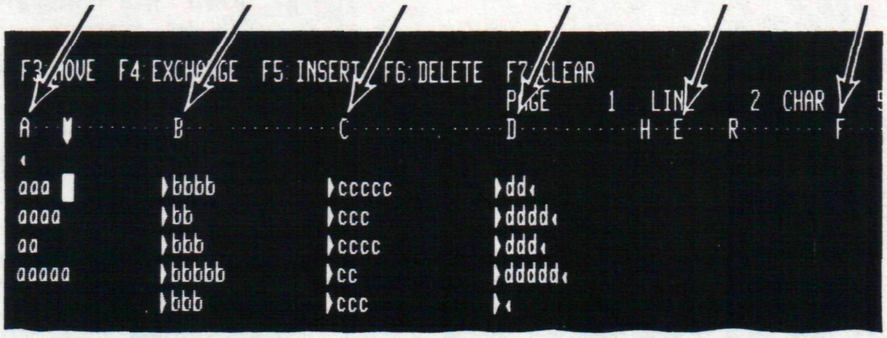
The column size must then be identified to let the system know what portion of the columns will be used for the column functions. An entire column or only a portion of the column can be identified, depending on what column operation is to be performed.

To Identify the Column Size

Instructions:

1. Press CODE + F4.
2. A prompt will appear to indicate the top row of the columns. Place the cursor on the top row of the column(s) or on the first line of the column to be identified.
3. Press ENTER.
4. A prompt will appear to position the cursor at the bottom of the columns. Move the cursor to the bottom row of the column, or to the last line to be identified.
5. Press ENTER. As you will notice, the column prompt appears at the top of the screen and the tab settings in the format line now appear as letters.

   You are now ready to use any of the column functions to manipulate these columns.



```
F3: MOVE  F4: EXCHANGE  F5: INSERT  F6: DELETE  F7: CLEAR
                                                PAGE     1   LINE    2  CHAR
A··▼··········B···········C···········D··········H·E···R·······F····
◂
aaa █         ▸bbbb       ▸ccccc      ▸dd◂
aaaa          ▸bb         ▸ccc        ▸dddd◂
aa            ▸bbb        ▸cccc       ▸ddd◂
aaaaa         ▸bbbbb      ▸cc         ▸ddddd◂
              ▸bbb        ▸ccc        ▸◂
```

Column Functions

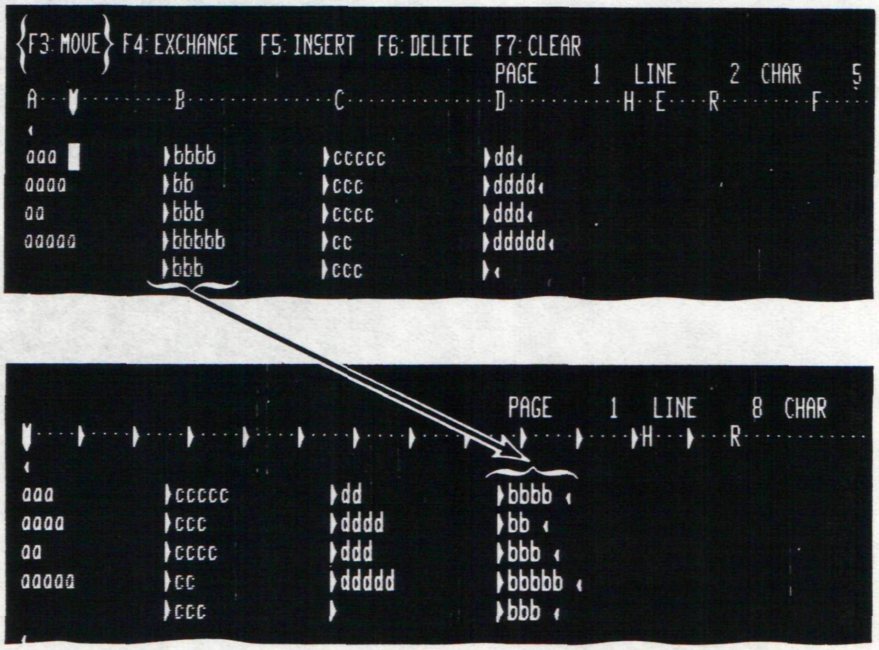
Moving a Column

The column move operation allows you to move a specified column to another column location within your text. When you move a column to another location, all of the other columns affected will be adjusted accordingly.

To Move a Column

Instructions:

1. Be sure you are in the columns mode (CODE + F4) and have identified the column size. (See previous instructions.)
2. Press F3 (MOVE).
3. A prompt appears for you to indicate the letters of the columns to be moved. Type the letter of the column to be moved in either upper or lowercase.
4. Type a period (.).
5. Type the letter representing the tab setting where you want the column to be moved in either upper or lowercase.
6. Press ENTER. The column will be moved to the other tab setting you specified.
7. Perform another column operation if required, or press RESET to discontinue the column function.



```
{F3: MOVE} F4: EXCHANGE  F5: INSERT  F6: DELETE  F7: CLEAR
                                             PAGE    1  LINE    2  CHAR   5
A···▼··········B··············C··············D···········H·E···R·········F····
◀
aaa █          ▶bbbb          ▶ccccc         ▶dd◀
aaaa           ▶bb            ▶ccc           ▶dddd◀
aa             ▶bbb           ▶cccc          ▶ddd◀
aaaaa          ▶bbbbb         ▶cc            ▶ddddd◀
               ▶bbb           ▶ccc           ▶◀
```

```
                                             PAGE    1  LINE    8  CHAR
▼····▶····▶····▶····▶····▶····▶····▶····▶····▶····▶····▶H··▶···R···········
◀
aaa            ▶ccccc         ▶dd            ▶bbbb ◀
aaaa           ▶ccc           ▶dddd          ▶bb ◀
aa             ▶cccc          ▶ddd           ▶bbb ◀
aaaaa          ▶cc            ▶ddddd         ▶bbbbb ◀
               ▶ccc           ▶              ▶bbb ◀
```

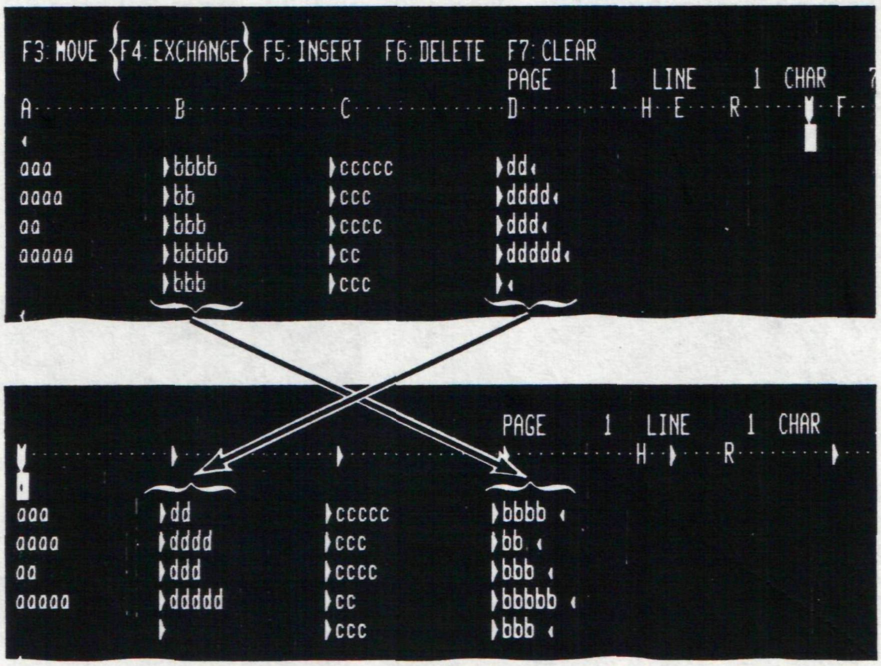
Exchanging Columns

The exchange column function is used to exchange or switch two columns of text. When two columns are exchanged, all other columns remain the same and the two designated columns exchange positions.

To Exchange Columns

Instructions:

1. Be sure you are in the columns mode (CODE + F4) and have identified the size of your columns. (See previous instructions.)
2. Press F4 (Exchange).
3. A prompt will appear indicating for you to identify columns to be exchanged. Type the letter of the first column to be exchanged in either upper or lowercase.
4. Type a period (.).
5. Type the letter for the other column it is to be exchanged with in either upper or lowercase.
6. Press ENTER. The two columns you specified will be exchanged.
7. Perform another column operation if required, or press RESET to *discontinue the column function.*



```
F3 MOVE {F4 EXCHANGE} F5 INSERT  F6 DELETE  F7 CLEAR
                                            PAGE    1  LINE    1 CHAR   7
A............B.............C.............D.........H..E...R.......▼.F...
◀
aaa          ▶bbbb         ▶ccccc        ▶dd◀
aaaa         ▶bb           ▶ccc          ▶dddd◀
aa           ▶bbb          ▶cccc         ▶ddd◀
aaaaa        ▶bbbbb        ▶cc           ▶ddddd◀
             ▶bbb          ▶ccc          ▶◀
```

```
                                            PAGE    1  LINE    1 CHAR
▼............▶.............▶.............▶.........H.▶....R.........▶...
▮
aaa          ▶dd           ▶ccccc        ▶bbbb ◀
aaaa         ▶dddd         ▶ccc          ▶bb ◀
aa           ▶ddd          ▶cccc         ▶bbb ◀
aaaaa        ▶ddddd        ▶cc           ▶bbbbb ◀
             ▶             ▶ccc          ▶bbb ◀
```

Inserting a Column

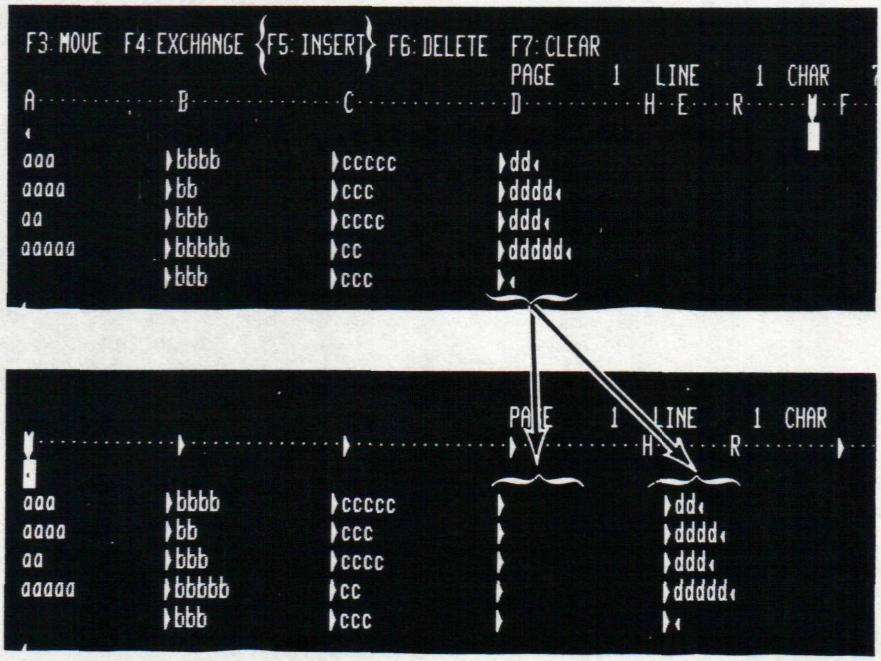
To expand the number of columns, an empty column can be inserted into a group of columns by using the columns function.

When this operation is performed a blank column is inserted so a column can be added. All of the columns to the right of the empty column move one tab position to the right. When inserting a column, an unused (empty) tab position must exist to the right of the position where the new column will be inserted. This will provide for an alignment position for the column which will get pushed to the right. If this "empty" column does not exist, the new column will not be inserted properly.

To Insert a Column

Instructions:

1. Be sure you are in columns mode (CODE + F4) and have identified the column size. (See previous instructions.)
2. Press F5 (INSERT).
3. A prompt will appear for you to identify where the column is to be located. Type the letter which represents the tab location where you want the column inserted in either upper or lowercase.
4. Press ENTER. A blank column will be inserted and all other columns will move to the right.
5. Perform another column operation if required, or press RESET to discontinue the column function.



```
F3: MOVE  F4: EXCHANGE {F5: INSERT} F6: DELETE  F7: CLEAR
                                                PAGE     1   LINE     1  CHAR
A···········B·············C·············D···········H··E····R······▼··F···
◀
aaa         ▶bbbb         ▶ccccc        ▶dd◀
aaaa        ▶bb           ▶ccc          ▶dddd◀
aa          ▶bbb          ▶cccc         ▶ddd◀
aaaaa       ▶bbbbb        ▶cc           ▶ddddd◀
            ▶bbb          ▶ccc          ▶◀
```

```
                                                PAGE     1   LINE     1  CHAR
▼···········▶·············▶·············▶···········H·······R··········▶···

aaa         ▶bbbb         ▶ccccc        ▶           ▶dd◀
aaaa        ▶bb           ▶ccc          ▶           ▶dddd◀
aa          ▶bbb          ▶cccc         ▶           ▶ddd◀
aaaaa       ▶bbbbb        ▶cc           ▶           ▶ddddd◀
            ▶bbb          ▶ccc          ▶           ▶◀
```

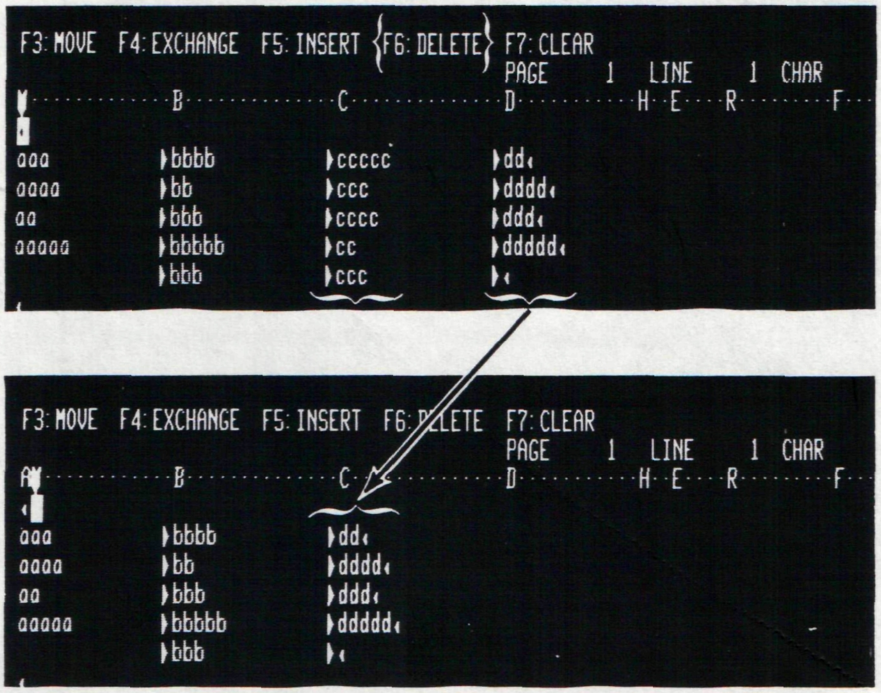
Deleting a Column

An entire column can be deleted from a chart of text or document if necessary. When this is done, the column position as well as the contents of the column will be deleted. The columns to the right will move back towards the left closing up the deleted column's position.

To Delete a Column

Instructions:

1. Be sure you are in columns mode (CODE + F4) and have identified the column size. (See previous instructions.)
2. Press F6 (DELETE).
3. A prompt appears for you to indicate the column to be deleted. Type the letter indicating the column you wish to delete in either upper or lowercase.
4. Press ENTER. The column will be deleted and all columns to the right will move back towards the left.
5. Perform another column operation if required, or press RESET to discontinue the column function.



```
F3:MOVE  F4:EXCHANGE  F5:INSERT  F6:DELETE  F7:CLEAR
                                            PAGE    1   LINE    1  CHAR
A............B............C............D.........H.E...R.......F...

aaa         ▸bbbb         ▸ccccc         ▸dd◂
aaaa        ▸bb           ▸ccc           ▸dddd◂
aa          ▸bbb          ▸cccc          ▸ddd◂
aaaaa       ▸bbbbb        ▸cc            ▸ddddd◂
            ▸bbb          ▸ccc           ▸◂
```

```
F3:MOVE  F4:EXCHANGE  F5:INSERT  F6:DELETE  F7:CLEAR
                                            PAGE    1   LINE    1  CHAR
A............B............C............D.........H.E...R.......F...

aaa         ▸bbbb         ▸dd◂
aaaa        ▸bb           ▸dddd◂
aa          ▸bbb          ▸ddd◂
aaaaa       ▸bbbbb        ▸ddddd◂
            ▸bbb          ▸◂
```

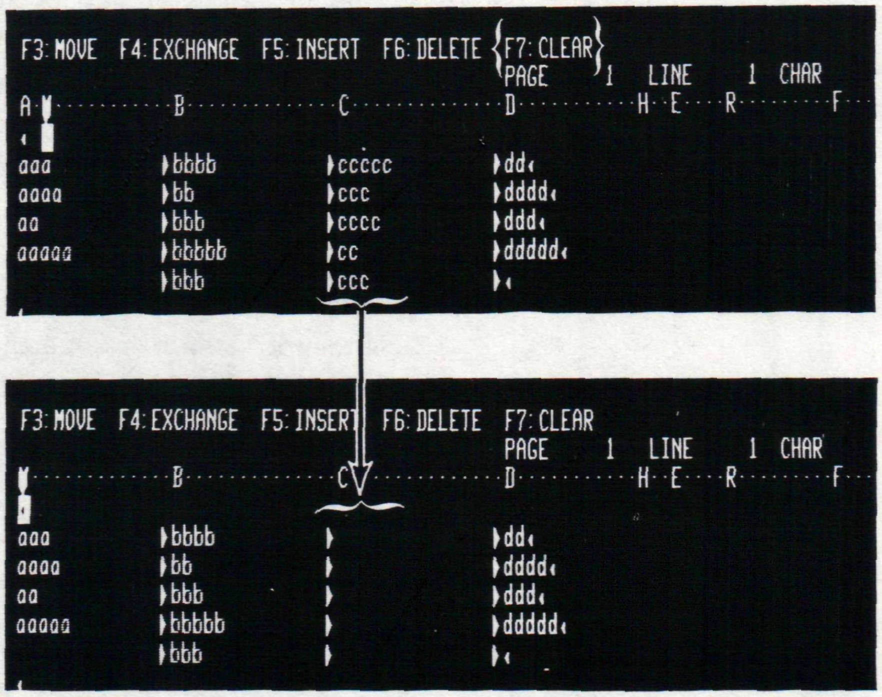
Clearing a Column

All of the terms, figures or characters can be cleared from a column if required. The column position itself will remain in place, ONLY the contents of the column will be deleted, leaving space for the input of other text.

To Clear a Column

Instructions:

1. Be sure you are in the columns mode (CODE + F4) and have identified the column size. (See previous instructions.)
2. Press F7 (Clear).
3. A prompt will appear for you to indicate the column to be cleared. Type the letter indicating the column to be cleared in either upper or lowercase.
4. Press ENTER. The contents of this column will be cleared and deleted from the text.
5. Perform another column operation if required, or press RESET to discontinue the column function.



```
F3: MOVE   F4: EXCHANGE   F5: INSERT   F6: DELETE   F7: CLEAR
                                                    PAGE     1   LINE     1  CHAR
A·············B··············C··············D··········H··E···R·········F···

aaa            bbbb           ccccc          dd
aaaa           bb             ccc            dddd
aa             bbb            cccc           ddd
aaaaa          bbbbb          cc             ddddd
               bbb            ccc
```

```
F3: MOVE   F4: EXCHANGE   F5: INSERT   F6: DELETE   F7: CLEAR
                                                    PAGE     1   LINE     1  CHAR
··············B··············C··············D··········H··E···R·········F···

aaa            bbbb                          dd
aaaa           bb                            dddd
aa             bbb                           ddd
aaaaa          bbbbb                         ddddd
               bbb
```

Editing Columnar Text

Not only can text be edited through the column functions, but it can also be manually edited using the standard text editing and tab functions available on the system.

When columns are edited, the tab code (▶) must always remain before the column entry. Because of this, special care must be taken to preserve these codes when entries are added or deleted.

Using the Standard Editing Functions

The standard editing functions are available when working with columnar text. This enables you to add characters, delete characters or overtype text as required.

Adding Characters: When characters are added, the entire row of columns will be moved to the right. The columns can be realigned using the adjust function. Just press F7 (Adjust), then press F7 (PARA) again to adjust the line where characters were added.

Deleting Characters: When characters are deleted the row of columns is shortened. If the tab marker is deleted, press CHAR ENTER then tab again where the tab is to be reinserted. Then, realign the columns using the adjust function. Just press F7 (Adjust), then press F7 (PARA) again to adjust the line where characters were deleted.

Overtyping: When overtyping text, the alignment of the columns is usually not affected. Just overtype text as previously instructed in Section 4 on Editing Text.

Changing Tab Settings

If the tab settings must be changed, columns can be aligned easily using the adjust feature (Section 4). To change the tab settings, simply access the tab grid, set the new tabs, then adjust the entire document. The columns will automatically readjust to the new tab settings.

SECTION 12
FORMS

Filling out forms can often be tedious, but with the Exxon 500 Series your forms can be easily stored only once, then filled in each time you need one completed.

Both pre-printed and completely original forms can be created using one of the following methods:

1. Ruler Pattern
2. Direct Type
3. Screen Creation

There are several steps involved in form creation and fill-in. First, the pattern and sequencing of the form must be determined. Then, the form is actually created on the screen and stored. Finally, the information requested by the form is filled in and can be either printed or stored as required.

Form Creation

The Ruler Pattern Method

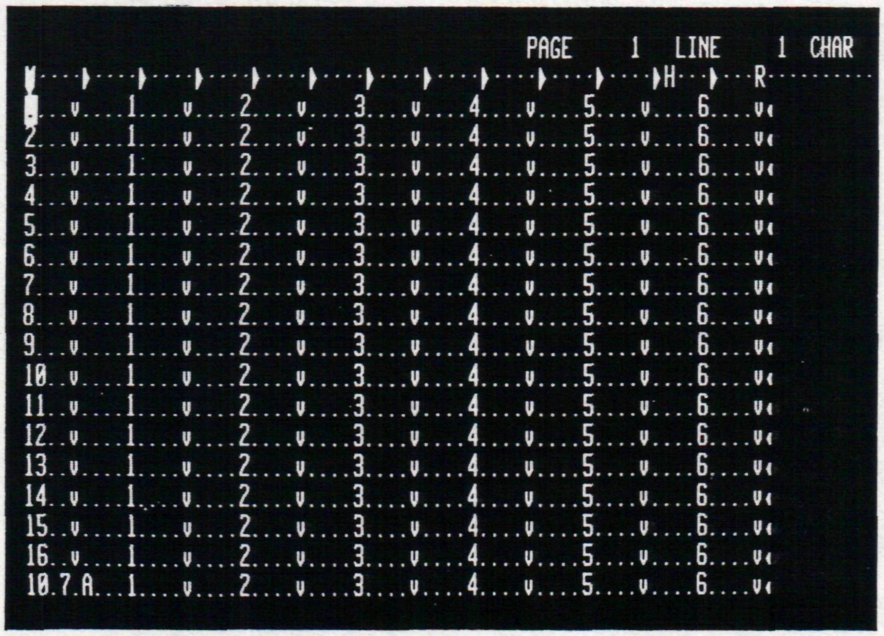
A pre-printed form has a certain pattern that must be determined before creating it on the screen. This can be done by using the forms ruler to help determine the exact location of each field or entry to be filled in.

The forms ruler is like a large grid that contains lines which are numbered at equal intervals both horizontally and vertically. It is used to help count the number of lines and spaces to identify a particular location on a form.

On the ruler, the numbers listed vertically are line numbers with each one representing one line. The numbers across represent characters. Between each number is 10 spaces, with a small "v" positioned at the mid-position (5 characters in). Each number stands for a multiple of 10 character spaces.

This ruler can actually be printed directly on top of an existing form so that each field can be specifically identified by exact character position. The ruler can be adjusted to fit over the entire form by setting status menu and format line values.

Forms Ruler



```
                                         PAGE    1  LINE    1  CHAR
▼····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸H··▸···R··········
█...v....1....v....2....v....3....v....4....v....5....v....6....v◂
2...v....1....v....2....v....3....v....4....v....5....v....6....v◂
3...v....1....v....2....v....3....v....4....v....5....v....6....v◂
4...v....1....v....2....v....3....v....4....v....5....v....6....v◂
5...v....1....v....2....v....3....v....4....v....5....v....6....v◂
6...v....1....v....2....v....3....v....4....v....5....v....6....v◂
7...v....1....v....2....v....3....v....4....v....5....v....6....v◂
8...v....1....v....2....v....3....v....4....v....5....v....6....v◂
9...v....1....v....2....v....3....v....4....v....5....v....6....v◂
10..v....1....v....2....v....3....v....4....v....5....v....6....v◂
11..v....1....v....2....v....3....v....4....v....5....v....6....v◂
12..v....1....v....2....v....3....v....4....v....5....v....6....v◂
13..v....1....v....2....v....3....v....4....v....5....v....6....v◂
14..v....1....v....2....v....3....v....4....v....5....v....6....v◂
15..v....1....v....2....v....3....v....4....v....5....v....6....v◂
16..v....1....v....2....v....3....v....4....v....5....v....6....v◂
10.7.A...1....v....2....v....3....v....4....v....5....v....6....v◂
```

To Print the Ruler on the Form

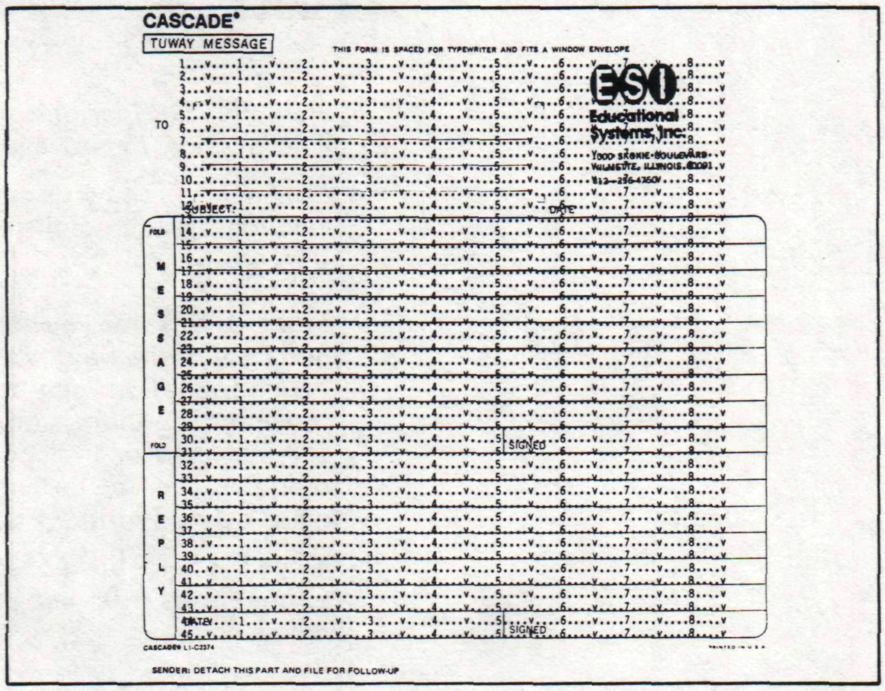
Instructions:

1. Set the margins and paper length to match the information on your form.

   For 8 ½" x 11" sheet in 10 pitch

   - Set left margin to 1 (format line)
   - Set right margin to 85 (format line)
   - Set page length on first page to 66 (Document Status Menu)
   - Left margin offset to 0 (Printer Status Menu)

2. Be sure the screen is blank and the cursor is positioned on line 1.
3. Press F10 (Applications).
4. Press F9 (Forms).
5. Press F9 (Ruler). The ruler will begin to construct on the screen.
6. Insert your form into the printer. Be sure it is lined up with the top of the form aligned with the bottom red horizontal line on the card guide (clear plastic guide attached to the printer head). The left edge of the form should be aligned with the far left line on the margin scale.
7. Pull the paper bail forward so the form will not jam as it advances in the printer.
8. Press PRINT SCRN (print screen) to begin the printing of the ruler over the form.
9. Follow the instructions listed on the next page to create the form.



CASCADE®

TUWAY MESSAGE

THIS FORM IS SPACED FOR TYPEWRITER AND FITS A WINDOW ENVELOPE

ESI Educational Systems, Inc.
1000 SKOKIE BOULEVARD
WILMETTE, ILLINOIS 60091
312-256-4760

TO

SUBJECT:

DATE

FOLD

MESSAGE

FOLD

SIGNED

REPLY

DATE

SIGNED

```
1...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
2...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
3...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
4...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
5...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
6...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
7...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
8...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
9...v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
10..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
11..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
12..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
13..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
14..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
15..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
16..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
17..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
18..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
19..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
20..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
21..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
22..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
23..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
24..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
25..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
26..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
27..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
28..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
29..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
30..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
31..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
32..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
33..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
34..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
35..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
36..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
37..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
38..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
39..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
40..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
41..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
42..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
43..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
44..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
45..v....1....v....2....v....3....v....4....v....5....v....6....v....7....v....8....v
```

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PRINTED IN U.S.A.

SENDER: DETACH THIS PART AND FILE FOR FOLLOW-UP

Locating the Fields: Each position where information is to be *inserted in a form is called a field. You must determine and specify the* exact location of each of these fields when creating a form to store on disk.

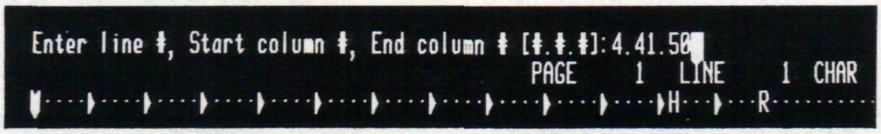
First you must locate the line on which the field lies, then determine the starting character position and ending character position of this field.

Creating and Storing the Form: After you have determined the pattern of your form using the ruler pattern, you must create a duplicate copy of this form called a template and define the fields on the screen, so it can be stored on disk.

To Create the Form

Instructions:

1. Be sure the ruler appears on the screen. (See Steps 1-5 listed on the previous page.)
2. Press F10 (Applications).
3. Press F9 (Forms).
4. Press F8 (DEF FLD).
5. Determine the exact location of the first field on the form by entering the line number, starting character postion and ending character position. Enter each of these location numbers, separating each one with a period.



```
Enter line #, Start column #, End column # [#.#.#]:4.41.50█
                                             PAGE    1  LINE    1  CHAR
▼····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸H···▸···R·········
```

6. Press ENTER. Special dots (coded spaces) will appear at the field position you have just indicated.
7. Continue to follow steps 5 and 6 until you have entered the location for each of the fields on the form.
8. Press RESET.

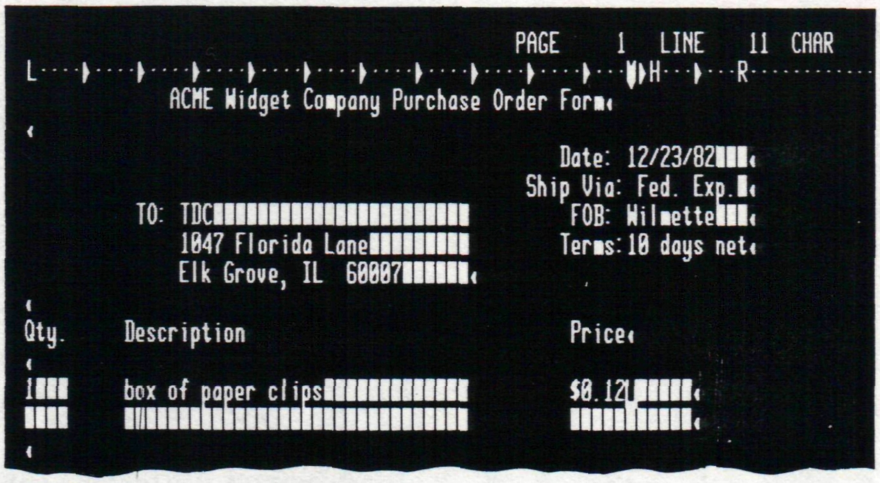
   Note: At this time you can scroll through the form to check for accuracy of the field positions. If a field has been incorrectly defined, positions can be deleted by typing over the coded space or positions can be added by pressing CODE + SPACEBAR to enter a coded space. If you wish, the grid can be reprinted over the form to check for correct positioning of the fields defined so far.
9. Once the fields have been defined to delete the ruler from the screen, press F10, then press F9 again to return to the forms mode.

10. Press F10 (Delete Ruler).
11. Answer "Y" to delete the grid (ruler). Once the ruler has been deleted, it cannot be recalled back to the screen with the fields which have been defined up to this point.

    Note: Answer "N" if you change your mind. The ruler will remain on the screen.
12. Once the ruler is deleted, only the coded spaces remain on the screen. If you want to record the entire form, including the descriptive text for each field, type that now before the field it is to specify. If you only want to record the fields, for a pre-printed form, continue on with Step 13.
13. Press F10 (Applications).
14. Press F9 (Forms).
15. Press F6 (Make) to "make" the fields for the form. Brightened boxes will appear at the field locations.
16. Press STORE.
17. Type a name (up to 34 characters with no colons or asterisks) for your form and press ENTER.

    Note: On a dual drive system to store on the other drive, type the drive letter followed by a colon before you type the name.

    The form is now stored and can be read to the screen and filled in at any time, which is described later in this section.



```
                                             PAGE    1  LINE    11  CHAR
L····▸····▸····▸····▸····▸····▸····▸····▸····▸····▸···▾▸H···▸···R··········
           ACME Widget Company Purchase Order Form


                                                 Date: 12/23/82
                                             Ship Via: Fed. Exp.
         TO: TDC                                  FOB: Wilmette
             1047 Florida Lane                   Terms: 10 days net
             Elk Grove, IL  60007


Qty.     Description                              Price

1        box of paper clips                       $0.12
```

The Direct Type Method

The Direct Typewriter Mode (see Section 7) can aid in creating a form. By using this method, the spacing can be determined exactly by typing directly over the form you wish to use. As you type on the form, the characters will display on the screen so they can be stored. Tabs can be set to quickly, move to the various locations in the form to indicate fields.

To Set Up a Form Using Direct Type

Instructions:

1. Insert the form into the printer.
2. Change the margin settings* to match the size of the form.

   *Change the left margin offset in the Printer Status Menu and the right margin in the format line.

   REMEMBER to set the right margin far enough to the right so that word wrap will not occur. In Direct Type, word wrap will appear on the screen but not on your direct typed document.
3. Press CODE + F12 (Utilities).
4. Select Direct Type by pressing F8.
5. Move across the first line of the form with the SPACEBAR and type any identifying words desired as they should appear on the form. When you reach the first field, use CODE + SPACEBAR to leave required spaces for each space in that field. The form will be created on the screen as you type over the form.
6. Press RETURN at the end of the line.
7. Continue following steps 5 and 6 for the remainder of the form.
8. Once the entire form has been completed, press STOP PRINT to exit Direct Type.
9. Press F10 (Applications) and F9 (Forms) to enter the Forms Mode.
10. Press F6 (Make) to "make" the required spaces into fields. All of the fields will be highlighted.
11. Press STORE to record the form. A prompt will appear to name the document.
12. Type a name for the form (up to 34 characters with no colons or asterisks) and press ENTER.

    Note: On a dual drive system, the form can be stored on the other drive by typing the drive letter and a colon before typing the name for the form.

    The completed form has now been stored and can be filled in at any time, which is described later in this section.

The Screen Creation Method

The screen creation method of assembling a form enables you to design unique forms. With this method you just type the fields to be included in the form using CODE + SPACEBAR to designate the spaces where information is to be inserted. Then, type any descriptive text that is required for the form at the required locations.

To Set Up a Form Using Screen Creation

Instructions:

1. Clear the screen and set the margins to your specifications.
2. Press RETURN to leave one line at the top of the screen, then begin creating the form.
3. Type any text to be included on the form. Press CODE + SPACEBAR to enter the coded spaces to designate the fields.
4. When you have created the entire form, press F10 (Applications) and F9 (Forms) to enter the Forms Mode.
5. Press F6 (make) to "make" the required spaces into fields. All of the fields will be highlighted.
6. Press STORE to record the form. A prompt will appear to name the document.
7. Type a name for the form (up to 34 characters with no colons or asterisks) and press ENTER.

   Note: On a dual drive system, the form can be stored on the other drive by typing the drive letter and a colon before typing the name for the form.

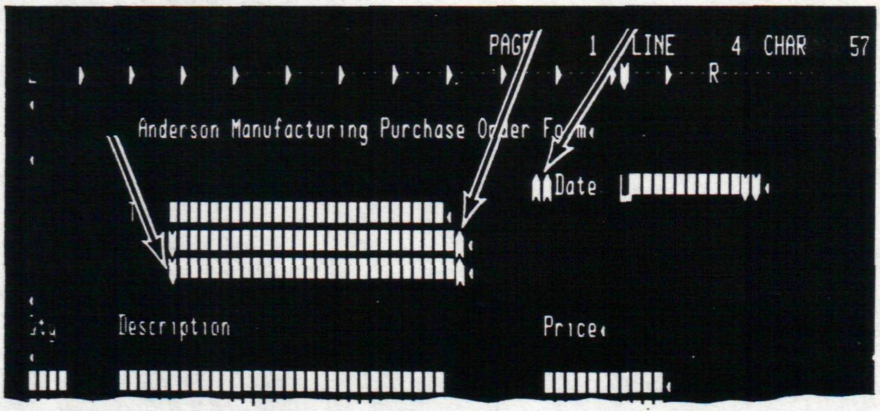
   The completed form has now been stored and can be filled in at any time, which is described later in this section.

Special Alignment Situations

In many cases, a form will not always exactly follow the standard line spacing of a page. Certain fields of information may be slightly raised or lowered off the line. Compensation may be made for these spacing deviations in two ways. The first is by using superscripts and subscripts to raise or lower fields on printout. The second method is to change the line spacing or lines per inch in the Document Status Menu.

Superscripts and Subscripts: Superscripts and subscripts can be used to raise or lower a field of information within a form on printout. The superscript or subscript offset can be set at either ¼ or ½ line spacing. Multiple superscripts and/or subscripts can also be entered to allow for certain field spacing.

To utilize superscripts and subscripts within a form, enter them directly before and/or after the field(s) to be raised or lowered before performing the "Make" operation in forms creation. Remember that the superscript and/or subscript codes will appear on the screen. The designated fields will only be moved either up or down upon printout. Selections should be made in the Variable Line Formats Document Status Menu for the super or subscript offset (½ or ¼) that is required.



```
                                         PAGE    1  LINE    4  CHAR   57

        Anderson Manufacturing Purchase Order Form

                                               Date

Qty     Description                            Price
```

Line Spacing and Lines Per Inch: Compensation for special line spacing in forms can be made, in some cases, through the selections in the Document Status Menu. The number of lines per inch (6 or 8) and the line spacing (.7, 1, 1.5, 2 etc.) can be changed. This will accommodate special spacing requirements for certain forms. The selections are made in the Variable Line Formats Document Status Menu. These selections will be initiated when the form is printed.

Special Note: If you wish to store a form or part of the form in the glossary, always place the cursor on the line ABOVE and the line BELOW the portion of the form when blocking it. Otherwise, the form will not be stored properly in the glossary.

Filling in the Form

After you have stored the form or the fields, you can read this form to the screen and fill in all of the required information.

You can automatically move the cursor from field to field. As you fill in the required information, each field is protected so you cannot exit it without pressing TAB or RETURN after your entry.

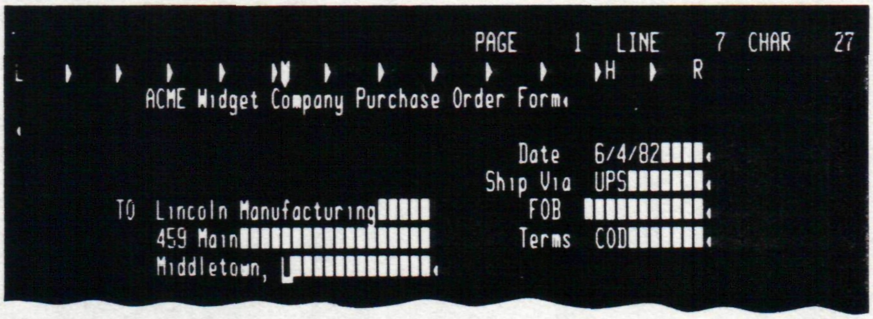
To Fill in the Form

Instructions:

1. Read the form to the screen by moving the cursor to the name of the form in the Index and pressing F5 (Read Doc).
2. If the cursor is not in the first field, press TAB to move the cursor there.
3. Type the appropriate information to be entered.

   Note: BACKSPACE to correct any errors.
4. TAB or RETURN to move to each consecutive field and enter the appropriate information. If TAB or RETURN is pressed after the last field, the cursor will return to the first field.

   Note: If you need to return to a previous field, press CODE + TAB. If this is pressed with the cursor in the first field, the cursor will be moved to the last field in the form.



```
                                   PAGE    1  LINE    7  CHAR   27
L  ▶   ▶   ▶   ▶   ▶▼  ▶   ▶   ▶   ▶   ▶   ▶H  ▶  R
          ACME Widget Company Purchase Order Form◂
◂
                                         Date  6/4/82████◂
                                     Ship Via  UPS███████◂
        TO  Lincoln Manufacturing█████         FOB  ██████████◂
            459 Main█████████████████        Terms  COD███████◂
            Middletown, █████████████◂
```

Form Storage and Print

After you have entered all of the information in the form, you can store the completed form as a document and/or print the form on paper.

When printing, you have two options. Only the fields and their entries can be printed onto a preprinted form, or the entire form, including the descriptive text, can be printed onto a clean sheet of paper.

To Store the Entire Form

Instructions:

1. After you have completed all of the entries, press STORE.
2. Answer "N" to update the original, otherwise your form pattern will be overstored.
3. Type a name for the form (up to 34 characters with no asterisks or colons).
4. Press ENTER to enter this name into the Index.

To Print the Form

Instructions:

1. Decide whether you want to print only the fields or both the fields and the descriptive text (if applicable).
2. Display the Printer Status Menu and answer the question accordingly.

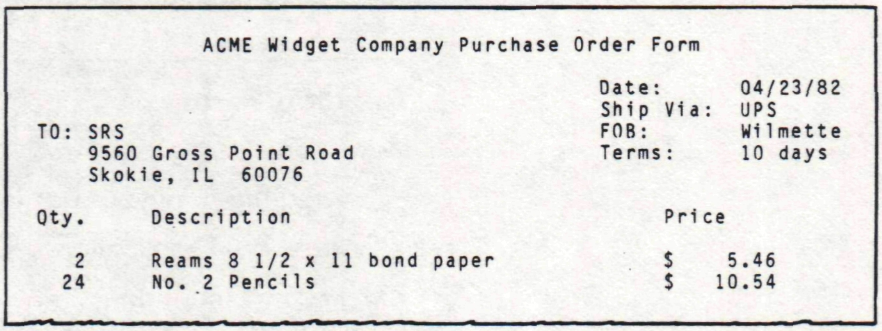
   Forms Composite Print (Y/N)
   If you want only the fields and their entries to print (for preprinted form), answer "N."

   -or-

   If you want both the fields and the descriptive text to print, answer "Y."

   Make any other necessary printer selections.
3. Press RETURN to go back to the form.
4. Press the PRINT SCRN (Print Screen) key located on the Screen/Numeric Keypad.
5. Insert the pre-printed (printing fields ONLY) form or a sheet of blank paper into the printer, then press RETURN.

Forms composite print answered "Y"—entire form will print



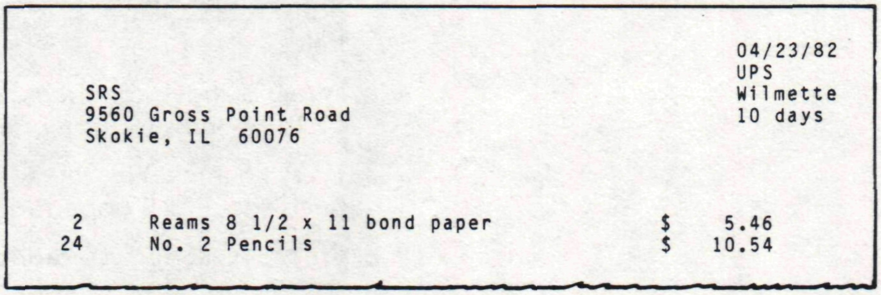
```
              ACME Widget Company Purchase Order Form

                                               Date:      04/23/82
                                               Ship Via:  UPS
TO: SRS                                        FOB:       Wilmette
    9560 Gross Point Road                      Terms:     10 days
    Skokie, IL  60076

Qty.     Description                                Price

  2      Reams 8 1/2 x 11 bond paper                $    5.46
 24      No. 2 Pencils                              $   10.54
```

Forms composite print answered "N"—only field will print



```
                                                          04/23/82
                                                          UPS
    SRS                                                   Wilmette
    9560 Gross Point Road                                 10 days
    Skokie, IL  60076



  2      Reams 8 1/2 x 11 bond paper                $    5.46
 24      No. 2 Pencils                              $   10.54
```

Clearing out the Fields

After you have printed a form, you may not find it necessary to store the information. The fields can be quickly cleared so other entries can be made.

To Clear out the Fields

Instructions:

1. While the form is on the screen, press F10 (Applications).
2. Press F9 (Forms).
3. Press F11 (Clear) and all of the entries you have made will be cleared out. New entries can now be entered into the field.

Editing a Form

A form you have stored may have to be changed or updated. The forms mode provides for editing by giving you the ability to change field size or standard information.

To Edit a Form

Instructions:

1. Read the form you wish to edit to the screen.
2. Press F10 (Applications).
3. Press F9 (Forms).
4. Press F7 (unmake). All of the brightened fields will be removed.
5. Using the standard text editing features, add or delete information. Press CODE + SPACEBAR to add additional spaces to the fields.
6. After you have completed all of the editing changes, press F10, F9 to re-enter forms mode.
7. Press F6 (make) to "make" the fields for the form. The brightened space will appear again to surround the fields.
8. Press STORE to restore the updated form.
9. Answer "Y" or "N" to the storage prompt accordingly.

SECTION 13
LINE DRAWING

With the line drawing function, flow charts, tables and other graphics are easy to create. When using the line drawing mode, special keys are designated to represent a certain direction of the cursor and can draw a line. These lines can then be combined to draw different things on the screen. This line drawing can be stored with the text and printed out with the entire document.

The Line Drawing Keys

Certain keys on the Screen/Numeric Keypad are used to draw the various lines for the line drawing mode.

Below you will see a chart which lists the line drawing keys and the direction they represent:

Key	**Direction**	**Movement**	
DEL SCRN	bottom right to top left	diagonal	↖
DEL LINE	bottom to top	vertical	↑
DEL WORD	bottom left to top right	diagonal	↗
4	right to left	horizontal	←
6	left to right	horizontal	→
STORE	top right to bottom left	diagonal	↙
READ	top to bottom	vertical	↓
GLOSS	top left to bottom right	diagonal	↘

No other keys on the Screen/Numeric keypad as well as any alphanumeric keys or editing keys will be available to use when you are using the line drawing mode.

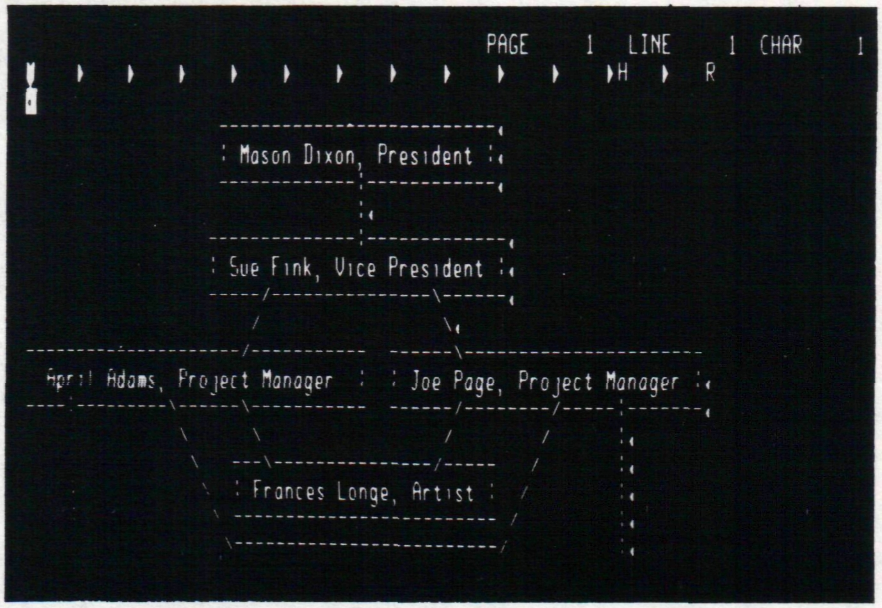
Using the Line Drawing Mode

The line drawing mode is accessed through the Applications Function Key (F10). Once the line drawing mode is selected, the NUMERIC Key must be pressed to implement the directional line values for the specific keys. Once the line drawing mode is accessed, no other text may be typed other than the line drawing characters. The line drawing mode must be exited before inserting other text.

To Access Line Drawing

Instructions:

1. Press F10 (Applications).
2. Press F11 (Line Drawing).
3. Press the NUMERIC Key located to the right of the SPACEBAR.
4. Use the designated keys to draw the lines required.



```
                                                PAGE     1   LINE     1  CHAR     1
         ---------------------------
         : Mason Dixon, President :
         ------------:-------------
                     :
        -------------:--------------
        : Sue Fink, Vice President :
        -----/---------------\------
            /                 \
-------------------/----------  ------\--------------------
 April Adams, Project Manager  :  : Joe Page, Project Manager :
---:---------\------\----------  ------/--------/-----:-------
              \      \                /        /      :
               \   ---\--------------/-----   /       :
                \  : Frances Longe, Artist :  /       :
                 \ -------------------------  /       :
                  \-------------------------/         :
```

To Exit the Line Drawing Mode

Instructions:

1. Press the NUMERIC Key once.
2. Press RESET to return to normal typing operations.

Printing a Line Drawing: When you are ready to print a line drawing, you must be sure the proper printwheel is inserted in the printer. Only certain printwheels contain all of the line drawing keystrokes, so this style printwheel must be inserted in the printer before printing a line drawing.

All of the Ascii (0129) style printwheels contain the line drawing keystrokes so insert one of these printwheels before printing a line drawing. Be sure to enter the Ascii printwheel number (0129) in the Printer Status Menu for the printwheel selection.

SECTION 14
RECORDS PROCESSING

Records Processing gives you the ability to set up lists of important information that can be used to organize information and to perform various applications.

One example of a list might be all the names and addresses of the companies you do business with. Another example of a list might be all of the people who work in your organization, along with their job titles, salaries, telephone numbers, and so on. In other words, a list is a lot of information about one subject—companies, employees, anything. Within a list there may even be a need for sublists, which can be established after the list has been created.

Once you have set up these lists of information, you can use them for various tasks, such as to:

- Merge with form documents or letters—Standardized or repetitive letters, which only have slight variations, can be generated without having to retype each one.
- Sort information (Model 520)—Lists of information can be organized in various ways.
- Select information by criteria (Model 520)—Certain information can be drawn out of lists to create sublists or be merged with other text.

This section will describe the basic functions involved with Records Processing including setting up lists and form documents, merging text, selecting by criteria and sorting information.

Creating a List

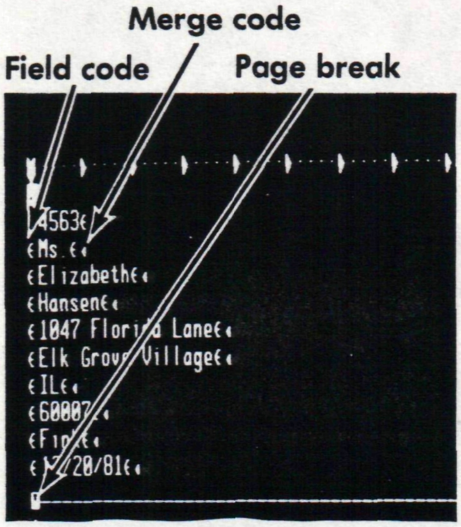
A list or data base is actually a group of records all about one subject. Each record is one specific part of a list. For example, in a list about employees one record might contain the following:

Employee Name	field 1	RECORD
Home Address	field 2	
Phone Number	field 3	
Age	field 4	
Job Title	field 5	
Salary	field 6	

Within the record, each portion of information is called a field. A field is any of the smaller sections of information that are combined together to create a record. Each record within a list must have the same number of fields.

When planning a list, you should analyze the applications this list will be used for and make a note of all of the information that should be included in each record. Once you have determined what information is to be included in the record, the next step is to divide the information into specific fields. It is important to remember that any number of fields can be selected in the merge process. However, the entire field will be merged into text. Portions of a field *cannot* be drawn out of the list. It is helpful to make each field as small as possible so that a single list can be used for a variety of applications. For example, divide the city, state, and zip code into three separate fields. The state can then be used in a mailing label with the city and zip, as well as separately within the body of a letter.

Once you have designed the format of the record, the list can be created. To assist you in entering the records, an Input Control Page for the records can be prepared. This acts as a pattern to enter information into each record. Once this has been completed, the records can be entered, and the list can be stored for future use.



```
4563ϵ
ϵMs.ϵ◂
ϵElizabethϵ◂
ϵHansenϵ◂
ϵ1047 Flori a Laneϵ◂
ϵElk Grov Villageϵ◂
ϵILϵ◂
ϵ6000 ◂
ϵFi ϵ◂
ϵ /20/81ϵ◂
```

Creating an Input Control Page

The Input Control Page for the record is actually a "pattern" which describes the field numbers and the type of information each field will include within the record. Three special codes are used consistently to create a list of records. They include a field code which is entered by pressing CODE + f (ϵ) and a Merge Code which is entered by pressing CODE + m (⅄) and a temporary page break which is entered by pressing CODE + T (▯-). Because of the repetitive keystrokes used in creating these, you can save time by using the Input Control Page to create each record. You read the control page to the screen using the READ key and type only the record information without recreating the field markers and page breaks for each record. This Input Control Page also serves as a reminder of the contents and sequence of the various fields for later reference.

To Create an Input Control Page

Instructions:

1. Clear the screen.
2. Press RETURN to move to the second line.
3. Press CODE + f. The field symbol ({) will appear on the screen.
4. Press CODE + m. The merge symbol will *not* appear on the screen at this point. However, a prompt will appear indicating for you to type a message.
5. Type a brief description (up to 34 characters) of the text that will be contained in the first field of the record. This prompt will reappear when you are inputting the records to remind you what should be entered in this field.

   EXAMPLE: "Type first and last names"
6. Press ENTER.
7. A second prompt will appear for you to indicate the field number. At this point, you have two choices.

   1) Type the number of the field (1, 2, 3, etc.).

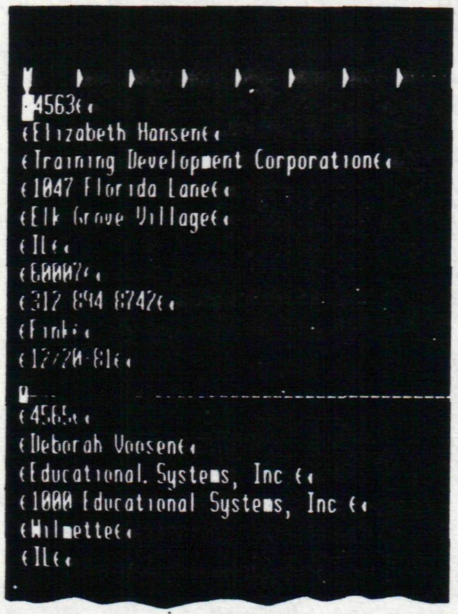
   -or-

   2) Type 0. This would allow you to enter variable information , such as a current date, balance amount, etc. when merging text.
8. Press ENTER. Notice that the merge symbol (⅄) now appears.
9. Press CODE + f again to end the field.
10. Press RETURN to move to the next line.
11. Continue to follow steps 3-10 for *EACH* field of information.
12. *When you have completed entering the information for ALL* of the fields, press CODE + T to enter a temporary page break to end the Input Control Page.

    Note: A required page break (CODE + R) can also be used if you will not need a printout of the list.
13. Press STORE to store this Input Control Page.
14. Type a *ONE* character name for the Input Control Page.
15. Press ENTER and the Input Control Page will be recorded on the Index.

Special Note: If there may be expansion of the record in the future, it might be a good idea to create some "blank" or "empty" fields when creating the Input Control Page. This would provide extra fields for easy addition of information at any time.

Entering Records



```
4563(
(Elizabeth Hansen(
(Training Development Corporation(
(1047 Florida Lane(
(Elk Grove Village(
(IL(
(60007(
(312 894 8742(
(Fink(
(12/20-81(
-----------------------------------------
(4565(
(Deborah Voosen(
(Educational. Systems, Inc (
(1000 Educational Systems, Inc (
(Wilmette(
(IL(
```

After you have created the Input Control Page, it will act as a pattern for entering each individual record. The prompts that you typed will be used to let you know what information to put in each field.

You may enter records into a list in any sequence. When merging information, the documents will be merged corresponding to the order of the records within the list. You may find, however, that entering records in a particular order, such as customer sequence, makes it easier to locate specific records when necessary. On the 520 System, records can be sorted into special sequences as required.

To Enter Records

Instructions:

1. Clear the screen.
2. Type the one character name of your Input Control Page.
3. Press READ.
4. The prompt that you typed for field 1 in the Input Control Page will appear to let you know what information you should enter. Type the appropriate information.
5. Press ENTER.
6. Continue to enter each field as specified in the prompt line. A page break will automatically be entered after you have typed the last field in the record.

   Note: To exit the Input Control Page before completing it, press RESET.

7. To input another record, complete steps 2 through 6.

   Note: If a storage prompt appears while entering records, type a name at that point and press ENTER.

8. When you have completed entering all of the records, press STORE.
9. Type a name (up to 34 characters) for your new list if you haven't already.
10. Press ENTER to store the list.

Record Entry Shortcut

If a record is fairly uncomplicated and not too long, it is possible to create a list of records without using an Input Control Page. This is done by manually entering the field codes (CODE + F) to surround each field of information, then entering a temporary page break (CODE + T) at the end of each record.

If this method of entry is selected, caution should be taken to be sure all records contain the same number of fields.

To Use Shortcut Method for Record Entry

Instructions:

1. Enter a field mark by pressing CODE + f.
2. Type the specific information to be included in field 1 on the first record.
3. Enter another field mark at the end of the field by pressing CODE + f again. This is field 1.
4. Press RETURN to move to the next line.
5. Continue to follow Steps 1-4 for *EACH* field of information in the record.
6. Afer all the fields have been entered, press CODE + T to enter a temporary page break to end the first record.

   Note: A required page break (CODE + R) can also be used if you will not need a printout of the list.
7. Continue to follow these steps for each record in the list.
8. Press STORE to store the list.
9. Type a name (up to 34 characters) for the list and press ENTER.

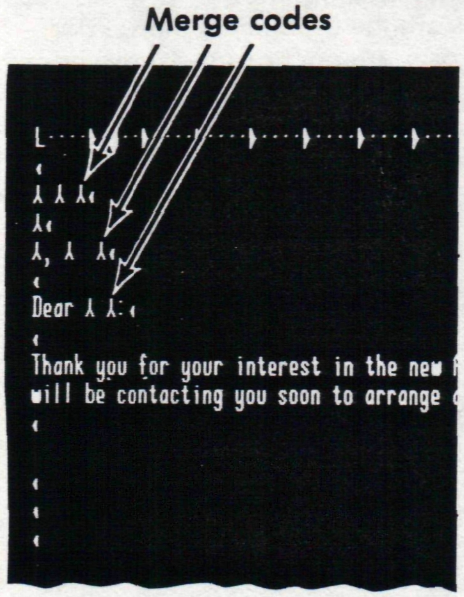
Editing a Record

If an entry in a record is entered incorrectly or a field must be updated, the list can be edited by reading the list to the screen, then using any of the text editing features to make the corrections. CAUTION must be taken to leave *all* field markers surrounding each field in place. If a field marker is accidentally deleted, it can be inserted by pressing CHAR ENTER and CODE + F at the appropriate position in the record. Page end codes at the end of each record must also remain in place.

If a specific record in a list must be edited, it can be most quickly accessed using the search feature (see Section 4). With the search method, a name, number or unique record identifier can be located immediately without scanning through the entire list.

Additional records can also be added to a list by reading the list to the screen, then using the Input Control Page to add each record to either the beginning, middle, or end of the list. The original list will be updated when storing.

Preparing a Form Document or Letter



```
L····▸····▸····▸····▸····▸····▸····▸···
◂
λ λ λ◂
λ◂
λ, λ  λ◂
◂
Dear λ λ:◂
◂
Thank you for your interest in the new
will be contacting you soon to arrange
◂


◂
◂
◂
```

A form document or letter can be created to merge with the list so that repetitive information will not have to be retyped. This form document will actually be printed, stored or displayed repeatedly with different information drawn from the fields in each record within the list.

A form document is like any other document except that in each place where you want variable information inserted (i.e., inside address, salutation, etc.) you simply enter a merge code. The merge code is entered by pressing CODE + m. The resulting merge symbol (λ) is then displayed on the screen. This represents an entire variable item or line of variable information, regardless of its size. Each merge code should be preceded and followed by the appropriate number of spaces and any punctuation that might be required for the text.

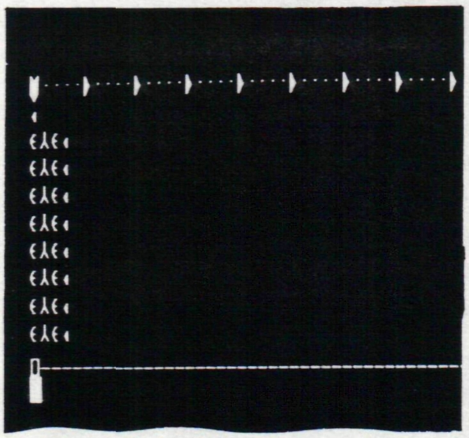
To Create a Form Document

Instructions:

1. Type the text up to the point where the first variable will be inserted.
2. Press CODE + m to enter a merge code.
3. A prompt will appear at this position. Type a description for what information will be inserted.
4. Press ENTER.
5. Another prompt will appear. Enter the number of the field that will be merged into the document at this position. Type the field number that corresponds to the information that should be merged. **Note:** If you will be typing personalized information at this point, type zero (0) for no field. Upon merging, when the system reaches this point, it will stop for you to enter text.
6. Press ENTER. A merge code (λ) will appear in the text.
7. Continue to type the text to be included within the document. Each merge code should be immediately preceded and followed by the appropriate spaces or punctuation.
8. Repeat steps 1 through 8 to complete the document..
9. When you have completed entering all of the text, press STORE.
10. Type a name (up to 34 characters) for your document.
11. Press ENTER to store the form document.

Because the system adjusts each document as it is merged to accommodate fields that vary in length, you can use soft hyphens when creating the merge document. Soft hyphens allow the system to hyphenate words automatically during adjustment. These hyphens, visible in TRACE Mode, are created by pressing CODE + - (hyphen).

Merging Text



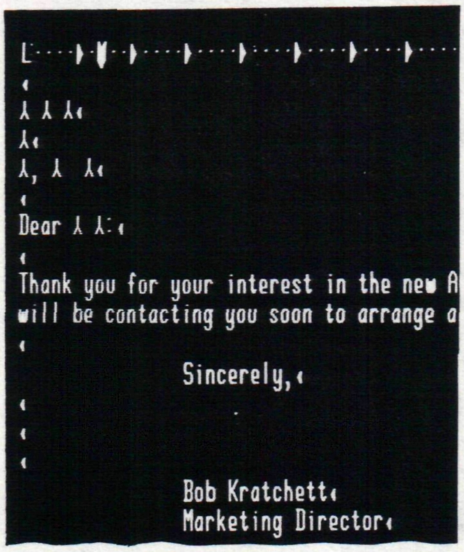
```
λ‹
€λ€‹
€λ€‹
€λ€‹
€λ€‹
€λ€‹
€λ€‹
€λ€‹
€λ€‹
```

Merging is a process of combining 2 separate components. In records processing these two components are the list and the merge document. Once a list and a standard form letter or document have been created, these two can be merged together to create numerous documents without retyping repetitive text. There are three merge methods which are available to select. These include:

1. Screen Merge
2. Automatic Merge
3. Print Merge

Screen Merge

Each individual document is merged on the screen, separately, allowing you to edit, print, store or do whatever you wish with that particular document.



```
‹
λ λ λ‹
λ‹
λ, λ  λ‹
‹
Dear λ λ:‹
‹
Thank you for your interest in the new A
will be contacting you soon to arrange a
‹
            Sincerely,‹
‹
‹
‹
            Bob Kratchett‹
            Marketing Director‹
```

To Do a Screen Merge

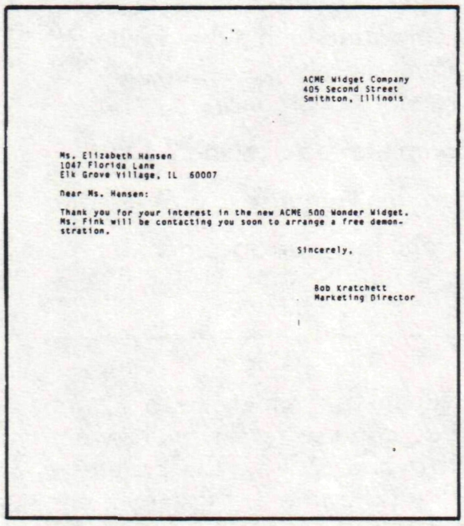
Instructions:

1. Clear the screen.
2. Press F10 (Applications).
3. Press F10 (Records Processing).
4. Press F6 to select a screen merge.
5. *A questions appears asking if you want a selective merge.*

   Answer "N" for no selection.

   Note: The selective merge is only available on the Model 520. See the instructions at the end of this section.
6. When the index appears on the screen, position the cursor on the "merge document" (standard variable letter or document) and press F4.

   Note: CODE + DOWN ARROW or CODE + UP ARROW can be used to access different pages of the Index.
7. Position the cursor on the list to be merged and press F4.
8. The first merged document will appear on the screen for you to *store, print, edit, etc. as required.*
9. When you are ready to merge the next record, press F10 (Applications) then F10 (Records Processing) again.
10. Now press F10 (Next) to merge the next record and document.



```
                                     ACME Widget Company
                                     405 Second Street
                                     Smithton, Illinois



Ms. Elizabeth Hansen
1047 Florida Lane
Elk Grove Village, IL  60007

Dear Ms. Hansen:

Thank you for your interest in the new ACME 500 Wonder Widget.
Ms. Fink will be contacting you soon to arrange a free demon-
stration.

                                    Sincerely,



                                      Bob Kratchett
                                      Marketing Director
```

11. Continue to follow steps 9 and 10 for each record you wish to merge. If you reach the end of the file, finish with step 15. Otherwise, continue with step 12.
12. When you have completed merging the records you wished to merge and have not come to the end of the list of records, the screen merge process must be terminated.
13. Press F10 (APPLICATIONS) then press F10 (Records Processing) again.
14. Press F11 (Stop Merge) to discontinue the merge process.
15. Press RETURN to continue.

Automatic Merge

When an automatic merge is selected, *all* records in the list are immediately merged with the form document on the screen in a continuous manner. This list of merged material is then stored and can be viewed or printed as required.

To Do an Automatic Merge

Instructions:

1. Clear the screen.
2. Press F10 (Applications).
3. Press F10 (Records Processing).
4. Press F8 (Auto) to select an automatic merge.
5. A question appears asking if you want a Selective Merge.

   *Answer "N"*for no selection.

   Note: The selecitive merge is only available on the Model 520. See the instructions at the end of this section.
6. When the index appears, position the cursor on the "Merge Document" (standard letter or document) and press F4.

   Note: CODE + DOWN ARROW or CODE + UP ARROW can be used to access different pages of the Index.
7. Position the cursor on the list of records and press F4.
8. Type a name (up to 34 characters) for the document which will store all of the merged text, then press ENTER.
9. A message will appear indicating how many records were looked at. Press RETURN to continue.
10. All of the merged documents will appear on the screen. Press STORE to complete the storage process and record these documents. All are now stored and available for use at anytime.

Print Merge

A print merge allows for each record to be merged with the form document and then printed automatically in a continuous manner.

To Do a Print Merge

Instructions:

1. Clear the screen.
2. Press F10 (Applications).
3. Press F10 (Records Processing).
4. Press F7 (Print Merge) to select the print merge.
5. A question appears asking if you want a Selective Merge.

   Answer "N" for no selection.

   Note: The selective merge is only available on the Model 520. See the instructions at the end of this section.
6. When the index appears, position the cursor on the "merge document" (standard letter or document) and press F4.

   Note: CODE + DOWN ARROW or CODE + UP ARROW can be used to access different pages of the Index.
7. Position the cursor on the list of records and press F4.
8. If using the manual feed method, insert a sheet of paper in the printer and press RETURN to print the first merged document.
9. Continue to insert paper and press RETURN for each merged document you wish to print.

   Note: If you wish to discontinue the print merge process at any time, press F10 (Applications), F10 (Records Processing) and F11 (Stop Merge).

The Merge Report

Once the merge has been completed, a merge report can be generated to indicate how many records were utilized in the merge process. This could be used to verify that the merge has been completed on the appropriate list or that the correct selection document was used.

To Generate the Merge Report

Instructions:

1. Press F10 (Applications).
2. Press F10 (Records Processing).
3. Press F9 (Report) to select the merge report.
4. A message indicating the number of records looked at will appear in the upper left-hand corner of the screen. Press RETURN to continue.

Special Merge Applications

Various applications and tasks can be significantly simplified and most efficiently accomplished using the merge operations. For example, not only can repetitive letters be prepared, address labels and envelopes can also be printed automatically using the merge process. Also, management reports and preprinted forms can be generated by merging information from each record.

Printing Address Labels or Envelopes: A common application for records processing is the continuous printing of envelopes or mailing labels. The procedure is very similar to automatic letter writing. However, there are a few differences in the format of the merge document and the status menu selections.

- Creating the Merge Document: The merge document for envelopes or mailing labels only contains format and merge codes indicating where the name and address will be merged from the list.

  When creating the merge document, several format considerations must be determined. The first is the size of the envelope or label. Determine how many inches long the envelope or label is and how many lines will be contained in this space. The left margin offset must also be determined and set in the Printer Status Menu prior to the merge and printing operations.

To Set up the Merge Document for Printing Address Labels or Envelopes

Instructions:

1. Determine what fields will be drawn from each record in the list. For example:

   FIELD 1 First Name
   FIELD 2 Last Name
   FIELD 5 Street Address
   FIELD 6 City and State
   FIELD 7 Zip Code

2. Calculate the length of the envelope or label (number of lines per inch x number of inches) and make this selection in the First Line Formats Document Status Menu for:

   PAPER LENGTH IN LINES

3. While in the status menu, set the maximum number of lines for first page and following pages to the same number in the length of the envelope.
4. Press RETURN as many times as required to compensate for the blank lines at the top of the envelope before the address is printed.
5. Move the cursor to the line where the name or first line of the address should appear.
6. Enter a merge code by pressing CODE + m.
7. Type a message indicating what field of information will be positioned here and press ENTER.
8. Type the field number and press ENTER. A merge code will appear on the screen.
9. Position the cursor at the location where the next field should be inserted.
10. Press CODE + m again.
11. Continue to follow steps 9-11 to position each field in the merge document.
12. Press STORE to record the envelope merge document.
13. Type a name for the document and press ENTER.

To Merge and Printout Envelopes or Labels

Instructions:

1. Clear the screen.
2. Make the left margin offset selection in the Printer Status Menu.
3. Press F10 (Applications).
4. Press F10 (Records Processing.).
5. Select F7 (Print Merge).
6. Answer "N" to selective merge.
7. Place the cursor on the envelope/label merge document and press F4.
8. Place the cursor on the list and press F4.
9. Inert a blank envelope or label into the printer and press RETURN.

   Note: Although you will usually create labels or envelopes by merging to the printer, you can also perform a screen merge or automatic merge if required.
10. Continue to print all required envelopes or labels.

Generating Management Reports: A records processing list contains a lot of valuable information. However, it is sometimes difficult to go back and look at each record individually to find out some special bit of information. Utilizing the merge process, management reports can be generated to create a listing of specified information from each record.

The procedure for creating reports is very similar to producing form letters or envelopes. The basic difference is the format of the merge document. Rather than representing an entire letter or envelope, the merge document now corresponds to a *single* line of the report. For example, the report may be required to contain an employees name, their hire date and the department in which they work. In this case, each line of the report will contain this information which will be drawn from the specified fields within each record in the list. The merge document will specify the format of the report and from what particular fields this information should be taken from.

- Creating the Merge Document: The first task in creating the merge document is to determine what the report should look like and what field numbers contain the information you need.

  You will need to arrange the columns to accommodate both the longest and the shortest values that may appear in each field. You must use tabs to align the columns because the system adjusts each line during the merge operation. Use the standard tab settings in the merge document, then set the appropriate tabs and type the desired column headings on the screen before generating the report. After the information has been merged, adjust the text to conform to the proper columnar alignment.

To Create the Merge Document for a Management Report

Instructions:

1. Press TAB to move the cursor to the first tab position (leave the standard default settings for now).
2. Press CODE + m.
3. Type a message indicating what information will be contained in this column.
4. Press ENTER.
5. Type the field number indicating in what field the appropriate information is located in the record.
6. Press ENTER.
7. Press TAB or move the cursor on the same line to the position where the next field of information should appear. Follow steps 2-7 for each field to be included on that line in the report.
8. Press STORE to store the merge document.
9. Type a name for the merge document and press ENTER.

The format, title, and column headings for the report are set up on a title document. First, set the desired margins and tab stops for the report. These settings will determine where the fields will be merged into the report. Then, with the desired format settings on the screen, you can type your report title and the column headings. When you have done this, store the title and headings as a separate document.

At this point, all the necessary documents have been created. The next step is to use records processing to create, or generate, the report.

To Generate Management Report

Instructions:

1. Read the title document to the screen and position the cursor at the left margin of the line where you want the first line of the report to appear.
2. Access the Applications function by pressing F10.
3. Press F10 (Records Processing).
4. Press F8 to select auto merge.
5. Answer "N" to Selective Merge.
6. Identify the list and the merge document by pressing F4 when the prompts appear.
7. Storage prompts may appear if the document is long. Answer accordingly.
8. When the merge process is complete, the report will appear on the screen.

Merging Information into Forms: Text from a list can be inserted into a form using the merge process. The form, however, must be set up in a special way to accommodate for the text alignment within the form when the text is merged from the list. The form merge document for the form must be created using tab settings at all field locations and at any positions where standard text should appear within the form. This is required because during the merge operation the system automatically adjusts the text, pushing all text not aligned using the TAB key out into the right margin.

- Creating the Merge Document: When preparing the merge document, first you should take a look at the form and notice the specific format and locations of fields and information. Then, set the appropriate standard tab settings for every field or position of standard text within the form. Once the tabs have been set, you must press the TAB key to move to the positions where the text or fields are located. At these positions you can enter a merge code (CODE + M) or type any text as required.

  Once the merge document has been created and stored, information from a list can be merged into the form using the standard instructions for the merge operation which were previously explained in this section.

To Set Up the Merge Document for a Form

Instructions:

1. Evaluate the format of your form to determine where tab settings should be positioned. Look at the form for specific groupings of similarly positioned fields or text. Notice at what points the tabs might change within the form to accommodate these various formats.
2. Clear the screen and press RETURN to move the cursor to line 2.
3. Press F5 (Tabs). The tab grid will appear on the screen.
4. Press F4 (Clear) to clear all of the existing tabs.
5. Move the cursor to the position where the first field or text should begin and press F5 (Set/Remove).
6. Continue to set tabs at each and every field location or anywhere that text appears. Tabs can also be set later in the form to accommodate for a different format.
7. After all of the tabs have been set, press RESET to remove the tab grid from the screen, then press RETURN to move to the next line.

Continued on 14/16

8. Press the TAB key the number of times required to move the cursor to the first location of a field or text on the first line of the form.
9. Enter a merge code by pressing CODE + M.
10. When the prompt appears to type a message, type a few words (up to 34 characters) to indicate what text will be merged in at this point.
11. Press ENTER.
12. Type the number of the field that should be merged into the form at this position and press ENTER.

    Note: Type a zero if you want the cursor to stop at a certain point during the merge process so that you can type variable text.
13. Press the TAB key the number of times required to move to the next position where text or a merge code should be inserted.
14. Continue to follow steps 9-13 to enter all merge codes or standard text on that line, then press RETURN to move to the next line of the form where merge codes will be inserted.
15. Follow these instructions for each line of text and/or fields within the form.
16. If the tabs change, reset the new tab settings at the line above the position where the new settings are required to format a particular grouping of fields and text.
17. After you have completed the merge document, press the STORE key to store the document and enter a name for the merge document when requested.
18. Use the merge document for merging the text from the list, following the appropriate merge instructions listed previously in this section.

Selection by Criteria (Model 520)

After all of the records have been input, you might wish to extract only certain records to be merged with text. For example, from a list you may wish to generate letters to only the people who live in Connecticut, or select out all women over a certain age. Unless records are specified, the system will automatically start with the first record and continue to merge each and every record through the entire list. Therefore, a selection by criteria must be performed to create a sublist or merge only certain records.

The selection operation is only available on the Model 520. It is performed using a selection document to indicate the selection criteria which specify the records to be pulled out of the list.

The Selection Document

To specify certain records, a Selection Document must be created. This Selection Document contains the instructions to indicate which records are to be selected from the list.

A selection by criteria can be made on both numeric and alpha characters. Those fields which contain numeric values, however, must be specifically identified to the system as numeric. This information is specified in the selection document before identifying the selection criteria. For example, a field which contains a salary must be identified as a numeric field before entering the selection criteria for it in the select document.

Identifying Numeric Fields in the Selection Document

If the system is to make a selection on numeric characters in fields within a record, the system must be informed as to which fields contain the numeric values. Identifying these certain fields as numeric will allow the system to make numeric comparisons, as well as identify any special numeric formats which may exist.

When a field is identified as being numeric, any other field or string it is being compared with is also considered to be numeric. If a field is not identified as numeric, it is considered to be an alpha field and a standard character comparison will be made on the words or letters within the field.

The system recognizes certain default formats for numeric values. For example, a comma is recognized as the standard separator character within a number (i.e. 1, 430, 750). The system also has standard values for the decimal identifier, leadering character and negative identifiers. If these values differ from what the system recognizes as default, they must also be identified in the selection document

Separator: The separator is the character which divides a number. If the separator is other than a "," (comma), it must be identified in the selection document by typing:

$$\underbrace{\text{SEPARATOR}}_{\text{All caps}} \quad \underbrace{\text{“ \quad ”}}_{\text{Type the separating character}} \quad \underbrace{\text{IN FIELD}}_{\text{All caps}} \quad \underset{\substack{\uparrow \\ \text{Type the field number where this exists}}}{(\quad)}$$

Decimal Identifier: The decimal identifier is the character which represents the decimal point in a number (i.e., 140.235.) If the decimal identifier is other than a "." (period), it must be identified in the selection document by typing:

$$\underbrace{\text{DECIMAL}}_{\text{All caps}} \quad \underbrace{\text{“ \quad ”}}_{\text{Type the decimal identifier}} \quad \underbrace{\text{IN FIELD}}_{\text{All caps}} \quad \underset{\substack{\uparrow \\ \text{Type the field number where this exists}}}{(\quad)}$$

Leadering Character(s): A leadering character is a nonnumeric character(s) that is found before the first numeric digit (i.e., $1,000). If the leadering character(s) is other than a "$" (dollar sign), it must be identified in the selection document by typing:

$$\underbrace{\text{IGNORE}}_{\text{All caps}} \quad \underbrace{\text{“ \quad ”}}_{\text{Type the leadering character}} \quad \underbrace{\text{IN FIELD}}_{\text{All caps}} \quad \underset{\substack{\uparrow \\ \text{Type the field number where this exists}}}{(\quad)}$$

Negative Identifiers: The system will identify negative numbers by any of the following:

- (hyphen) [before or after the number]
CR [before or after the number]
( ) (parentheses) [surrounding number]

Characters other than digits, negative identifiers, separators, leadering characters or decimal identifiers will be considered terminating characters and the numeric value will only be recognized up to this terminating character. If the system reaches a terminating character before a numeric value, the numeric characters will be considered to have a value of zero for the selection comparison.

Example:

$$\overset{}{\text{123}}\underset{\substack{\uparrow\\ \text{Terminator}}}{\text{a}}\text{4 (value of 123)} \qquad \underset{\substack{\uparrow\\ \text{Terminator}}}{\text{L}}\text{570 (value of zero)}$$

To Identify Negative Values

Instructions:

1. Move the cursor to line #2 within the selection document (See TO CREATE THE SELECTION DOCUMENT explained next).
2. Identify the numeric field by typing the following statement:

$$\underbrace{\text{ACCEPT}}_{\text{All caps}} \qquad \underbrace{\text{"numeric"}}_{\substack{\text{Type the}\\ \text{word "numeric"}}} \qquad \underbrace{\text{IN FIELD}}_{\text{All caps}} \qquad \underset{\substack{\uparrow\\ \text{Type the field}\\ \text{number where the}\\ \text{numeric is}\\ \text{located}\\ \text{surrounded by}\\ \text{parentheses}}}{(\quad)}$$

3. Press RETURN.
4. Type any *special* format instructions for the separator, decimal identifier, or leadering character, if they differ from the default value, pressing RETURN after each statement.
5. Continue to follow these steps for each numeric field which is to be selectively compared.

Selection Instructions

There are twelve (12) instructions which are used to specify the criteria for selecting records from a list in the selection document. The instructions describe what characteristics are required in a record to select it from the list. These selection instructions are set up in a specific format, which consists of keywords and criteria. The keywords tell the system what type of selection to perform. The criteria tells the system exactly what information to select and in which field(s) this information will be found. The instructions can be combined together to enable very specific selections if required.

This list of selection instructions includes the following:

1. MATCHING " ▒ " IN FIELD (▒)

   To select records which have a specific (exact) contents in one of their fields.

   Example:

   To select all records with the same zip code.

   MATCHING "11705" IN FIELD (4)

2. WITH "▒" IN FIELD (▒)

   To select records beginning with certain contents in one of the fields.

   Example:

   To select records whose 5th field has its phone number beginning with area code (516). (Numeric must be previously specified.)

   WITH "(516)" IN FIELD (5)

3. WITHOUT " ▒ " IN FIELD (▒)

   To select records without certain contents *beginning* one of their fields.

   Example:

   To exclude (not select) all records whose phone area code is (203). (Numeric must previously be specified.)

   WITHOUT "(203)" IN FIELD (5)

4. SEARCH FIELD (▒) FOR " ▒ "

   To select records which contain certain contents anywhere within the specified field.

   Example:

   To select all people with the last name of Rogers.

   SEARCH FIELD (1) FOR "Rogers"

5. XSEARCH FIELD (▒) FOR " ▒ "

   To select records which do not contain certain contents anywhere in a specified field.

   Example:

   To exclude (not select) all records which have addressed in NJ.

   XSEARCH FIELD (4) FOR "NJ"

6. BEFORE " ▒ " IN FIELD (▒)

   To select the records with a field that begins before a certain number or letter.

   Examples:

   To select the records whose seventh field begins before "R."

   BEFORE "R" IN FIELD (7)

   To select the records whose balance in field 8 is below $500. (Numeric must be previously specified.)

   BEFORE "$500" IN FIELD (8)

7. AFTER " ▒ " IN FIELD (▒)

   To select records which has a field which begins after a certain letter or number.

   Example:

   To select all records in which the last name begins after the letter G.

   AFTER "G" IN FIELD (7)

   Note: You can use both BEFORE and AFTER for the same specified field to create a more specific selection. For example, BEFORE "6000" IN FIELD (1) and AFTER "3000" IN FIELD (1) instructs the system to select only records that have a value of 3001 through 5999 in field 1.

8. TO " ▒ " IN FIELD (▒)

   To select the records with a field that begins with or before a certain number or letter.

   Examples:

   To select the records whose seventh field begins with "R" or before "R."

   TO "R" IN FIELD (7)

   To select the records whose balance in field 8 is $1000 or below. (Numeric must be previously specified.)

   TO "$1000" IN FIELD (8)

9. FROM " ▒ " IN FIELD (▒)

To select records which in the specified field begins with or comes after a certain number or letter.

Example:

To select records whose 7th field begins with or after "M."

FROM "M" IN FIELD (7)

To select records whose 9th field begins with or contains a salary larger than $15,000. (Numeric must be previously specified.)

FROM "$15,000" IN FIELD (9)

Note: You can use any combination of the keywords FROM and TO, to create a range of letters or numbers to be selected. FROM "C" IN FIELD (4) and TO "X" IN FIELD (4) instructs the system to select only records where the beginning word in field 4 begins with C through X.

10. COMPARE (▒) "= (▒)"

To select the records which satisfy the comparison of the designated fields. The sign used can be any of the following:

> Greater Than
< Less Than
= Equal To
>= Greater Than or Equal to
<= Less Than or Equal to
< > Not Equal to

Example:

To compare field 9 with field 10 and select the records in which field 9 is greater than field 10.

COMPARE (9) ">(10)"

Field 9 $1000 (Balance) Field 10 $500 (Credit Limit)	SELECTED
Field 9 $250 (Balance) Field 10 $500 (Credit Limit)	NOT SELECTED

11. START WITH (▒)

You can use the START keyword to instruct the system either at which record or at which value in a particular field to begin records processing or a certain selection by criteria.

Example:

START WITH (20)
↗
Field number

12. LETTER and LIST " ▒ "

If you wish to include it in the selection document, the keyword LETTER identifies the merge document and the keyword LIST identifies the records list to be used during records processing. After each of these keywords, you type the name of the appropriate document enclosed within quotation marks. Be sure to type the name exactly as it appears in the Index. If you choose not to use these keywords in your selection document, the system will prompt you to identify the merge document and the list from the Index. You can use whichever option you prefer to identify these documents.

Example:

LETTER "Standard Letter"

LIST "Mailing List"

Creating the Selection Document

When creating the Selection Document, it is important to type the specific criteria instructions. These instructions must be typed and aligned in a particular way so that the system understands the criteria that must be met for proper record selection. The selection by criteria can be performed on the entire list of records or on just a portion of the list, beginning at a particular record or field within a record. This criteria must also be included in the selection document. Use the following list as a guide when typing criteria instructions:

- Be sure to identify numeric fields that are to be selectively compared.
- Type one instruction per line.
- Word the instruction exactly with the select instructions typed in uppercase, criteria enclosed in quotes and the field number enclosed in parentheses.
- Type the instruction so that the group of records are identified by what they have in common.
- The instruction should describe only the records to be selected. Be sure these instructions do not describe records outside of the group.
- The option is given to select two different groups of records at one time. Type the word "or" on a line between the two separate instructions.
- Multiple instructions can be given to select very specific records. List each instruction on a separate line.
- A record will not be used twice if it fits two lists of criteria instructions. The Selection Document can specify which records to select from. The selection process can begin with the first record in the list or at a specific record or field. This must just be identified in the Selection Document.

It is best to think through the exact criteria and starting position for the records ahead of time. When you create the Selection Document, remember to be specific when typing the list of instructions and type these control page instructions in uppercase letters.

To Create a Selection Document Beginning with the First Record

Instructions:

1. Clear the screen and press RETURN once.
2. If required, identify any numeric fields to be selectively compared. (Refer to previous instructions.)
3. Type in the first instruction from the criteria list. Be sure to type the instructions in all caps and enter the correct field number.

   Example:

   AFTER "14086" IN FIELD (5)
4. Press RETURN once to move the cursor to the next line.
5. Repeat steps 3 and 4 for each additional instruction if necessary.

   Example:

   AFTER "CA" IN FIELD (3)
   WITH "06794" IN FIELD(S).
6. To identify the merge document, type the word LETTER in all caps and a space.

   Note: If you *do not* wish to enter the names of the merge document and the list in the selection document they can be identified when performing the merge operation. In this case, go on to Step 11.
7. Type the name of the merge document, surrounded in quotation marks, *exactly* as it appears on the Index.
8. Press RETURN.
9. To identify the list, type the word LIST in all caps and a space.
10. Type the name of the list, surrounded in quotation marks, exactly as it appears on the Index.
11. Press STORE to store the Selection Control Page.
12. Type a name for the document and press ENTER.

To Create a Selection Document Which Begins with a Specific Record

Instructions:

1. Clear the screen and press RETURN once.
2. If required, identify any numeric fields to be selectively compared. (Refer to previous instructions.)
3. Type in all caps the words "START WITH."
4. On the same line, type the starting record number in parentheses.

   Example:

   START WITH (20)

   (All records before the twentieth record *will not* be included in the selection.)
5. Press the RETURN key twice.
6. Type the first instruction starting directly beneath "START WITH." Be sure to type the instructions in all caps and enter the correct field number.
7. Press RETURN once to move the cursor to the next line.
8. Repeat steps 6 and 7 for each additional instruction if necessary.

   Example:

   START WITH (20)
   AFTER "DO" IN FIELD (4)
   WITH "09787" IN FIELD (6)
9. To identify the merge document, type the word LETTER in all caps and a space.

   Note: If you *do not* wish to enter the names of the merge document and the list in the selection document they can be identified when performing the merge operation. In this case, go on to Step 14.
10. Type the name of the merge document, surrounded in quotation marks, *exactly* as it appears on the Index.
11. Press RETURN.
12. To identify the list, type the word LIST in all caps and a space.
13. Type the name of the list, surrounded in quotation marks, exactly as it appears on the Index.
14. Press STORE to store this document.
15. Type a name for the document and press ENTER.

To Create a Selection Document Starting with a Certain Field

Instructions:

1. Clear the screen and press RETURN once.
2. If required, identify any numeric fields to be selectively compared. (Refer to previous instructions.)
3. Type in all caps the words "START WITH."
4. On the same line, type in quotes, the contents of the field to begin at.

   Note: The contents in the field must not occur in that particular field in any previous records.
5. Continue on the same line and type "IN FIELD."
6. Identify the field by typing the field number surrounded by parentheses.

   Example:

   START WITH "Paula Smith" IN FIELD (5)
7. Press RETURN twice.
8. Type the first instruction.
9. Press RETURN.
10. Type any additional instructions following steps 8 and 9.
11. To identify the merge document, type the word LETTER in all caps and a space.

    Note: If you *do not* wish to enter the names of the merge document and the list in the selection document they can be identified when performing the merge operation. In this case, go on to Step 16.
12. Type the name of the merge document, surrounded in quotation marks, *exactly* as it appears on the Index.
13. Press RETURN.
14. To identify the list, type the word LIST in all caps and a space.
15. Type the name of the list, surrounded in quotation marks, exactly as it appears on the Index.
16. Press STORE to record the Selection Control Page.
17. Type a name for the document and press ENTER.

Performing a Selective Merge

After the Selection Document has been created, the selective merge operation can be performed by simply adding a few more steps to the basic merge procedures.

To Perform a Selective Merge

Instructions:

1. Clear the screen.
2. Press F10 (Applications).
3. Press F10 (Records Processing).
4. Select the type of merge you wish to perform:

   F6 Screen Merge
   F7 Print Merge
   F8 Auto Merge
5. A question appears asking if you want a selective merge. Answer "Y" for yes.
6. Type the name of the selection document and press ENTER. If you *do not* remember the exact name of the selection document, press ENTER immediately. The Index will reappear. Position the cursor on the selection document and press F4.
7. A message will appear indicating that the selection document is being read. If you have *not* included the name of the merge document and the list in the selection document, continue on with step 8. If you have, the selective merge will be completed.
8. When the index appears on the screen, place the cursor on the merge document (standard letter or document) and press F4.
9. Position the cursor on the list and press F4. The selective merge will be completed.

Creating a Sublist

A sublist can be created using the selective merge operations. First you must create a merge document indicating the format of the fields to be contained in the sublist. This is similar to the Input Control Page (previously discussed in this section) and is created using field codes (CODE + F) and merge codes (CODE + M) to indicate the specific fields and their format in the list. These codes are followed at the end of the merge document by a temporary page break (CODE + T). After you have created the merge document, a selection document must also be created to indicate which records are to be selected from the master list for the sublist. Finally, an automatic merge is performed to create the sublist.

Sort (Model 520 only)

Once a list of records has been created, this list can be arranged into a particular order. This is called sorting. The information in the list is actually arranged into a certain order of occurrence which you select.

On the 500 Series, a list can be sorted either alphabetically or numerically in ascending or descending order. The system will automatically sort the list in alpha ascending (a-z) order if no other instructions are given. This is called the "default" sort.

Examples:

A - Z Alpha Ascending (default)

Z - A Alpha Descending

1 - 10 Numeric Ascending

10- 1 Numeric Descending

The Sort Document

In order for text to be sorted, it must be set up as records with fields within a list. Then, a sort can be performed on a particular field within the record when desired. Once the list has been stored, a sort document is created to instruct the system on what list is to be sorted and in what manner.

To Create the Sort Document

Instructions:

1. Type "EXPRESSORT." This tells the system that this is the sort document, then press RETURN.
2. Type the name of the document to be sorted surrounded by quotation marks. This name must be typed exactly as it appears on the Index, including any spaces or punctuation.

   Example:

   ```
   EXPRESSORT
   "Letter List"
   ```

3. Indicate the particular field to be sorted by typing the word "FIELD" in all caps.
4. Type the number of the field to be sorted surrounded by parentheses.

   Example:

   ```
   EXPRESSORT
   "Letter List"
   FIELD (2)
   ```

5. Directly after the field, indicate the type of sort to be performed. REMEMBER, alpha and ascending are the default selections, so these do not have to be indicated. Select the description you need:

   FIELD (2) [**Alpha Ascending**]

   FIELD (2) NUMERIC [**Numeric Ascending**]

   FIELD (2) DESCENDING [**Alpha Descending**]

   FIELD (2) NUMERIC DESCENDING [**Numeric Descending**]

6. Enter any other identifying statements (negative, separators, decimals, echo) which are required for the sort. (See special instructions next in this section.)
7. Press STORE to store the sort document.
8. Type a name for the sort document and press ENTER.

Special Sort Instructions

Within the sort document, certain instructions can also be included to specify special types of sorts or certain unique formats for numeric characters to be sorted. These specialized instructions are explained below:

Identifying Negative Values: During the sort process, the 500 Series recognizes the following values as a minus sign to indicate negative numbers:

- (hyphen) [appearing before *or* after the number]
CR [appearing before *or* after the number]
( ) (parentheses) [appearing before *and* after the number]

If any characters other than these are used, the designated symbol used to represent the negative value must be identified in the sort document. Type one of the following on the line after the sort instructions:

- PRE-NEGATOR ___ If the indicator comes *before* the number
  Enter symbol

Example:

PRE-NEGATOR NEG

- POST NEGATOR ___ If the indicator comes *after* the number

To Identify a Special Negative Identifier

Instructions:

1. Press RETURN to position the cursor after the sort instructions.
2. If a character or symbol, other than the default values, precedes a number to indicate a negative value, type the word PRE-NEGATOR in all caps.
3. Type the pre-negating value, then press RETURN to move to the next line.
4. If another character or symbol follows the number to indicate a negative value, type the words POST NEGATOR in all caps.
5. Type the post negating value, then press RETURN.

Identifying Leadering Characters: A leadering character is a non-numeric character(s) that is found before the first numeric digit. The system will recognize a number even if there is a "$" before the digits. If there are any other characters that act as a leadering character, they must be indicated by typing an instruction on a separate line within the sort document. The instruction tells the system to ignore the character as shown below:

IGNORE ____
All caps
Type the character to be ignored

To Identify Leadering Characters

Instructions:

1. Press RETURN to position the cursor after the sort instruction.
2. Type the word IGNORE in all caps.
3. Type the leadering character to be ignored.
4. Press RETURN.

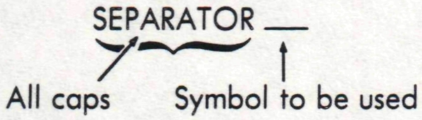
Identifying Number Separators: On occasion, another character other than a comma may be used to separate the digits in a number (i.e., 2:000:000). If the separator is different than the standard comma, it must be indicated in the sortr document by typing a special command.

To Indicate Another Separator

Instructions:

1. Press RETURN to position the cursor on the line after the sort instructions.
2. Type the word SEPARATOR in all caps.
3. Type the symbol that will be the separator for the numbers.

Example:



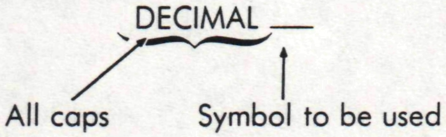
Identifying Decimal Identifiers: If a character other than a period is to be used for a decimal point, it must be indicated to the system by typing a special command in the sort document.

To Identify the Decimal Identifier

Instructions:

1. Press RETURN to position the cursor on the line after the sort instructions.
2. Type the word DECIMAL in all caps.
3. Type the decimal separator to be used.

Example:



Identifying Sort Order: The 500 Series will sort alphabetically and numerically in the order AaBbCc...YyZz and 0123...9. However, if a special sort is required, the system can sort in whatever order you specify in the sort document.

To Identify a Special Sort Order

Instructions:

1. Press RETURN to position the cursor on the line after the sort instructions.
2. Type the word SORTORDER in all caps.
3. Type the particular sort order you desire.

   Example:

$$\underbrace{\text{SEPARATOR}}_{\text{All caps}}\ \underbrace{\text{ABCD...YZabcd...xyz0123...9}}_{\text{Special sort order}}$$

Printing the Sort Information: When a list is sorted, the system can provide a printout of the type of sort that was performed at the end of the sort process. This is done by entering a special command in the sort document. This special command is called the Echo command.

To Have Sort Information Print After the Sort Operation

Instructions:

1. Press RETURN after the *last* instruction of the sort document. This should be the last line of the sort document.
2. Type the word ECHO in all caps.
3. Store the sort document. Be sure the printer is turned on when performing a sort with a Echo command.

Sorting a List

When the sort instruction is given, the list is sorted. Then, the new sorted list is restored over the original. If it is necessary for the original list to be retained, this list must first be duplicated before the sort is performed.

To Sort a List

Instructions:

1. Clear the screen. REMEMBER, to make a duplicate copy of the list if you want to retain a copy of the original. The sorted list will overstore the original.

   Note: Be sure the printer is turned on if Echo command is included in sort document.
2. Press F1 to read the index to the screen.
3. Position the cursor on the sort document.
4. Press F9 (Run Program) to begin the sort process.

   Note: F12 (More) will enable you to see the additional index functions including Run Program.
5. The system will begin to sort the in formation and a message will appear on the screen indicating that the sort is in progress and what records are being sorted.
6. When the sort is completed, the message will disappear and the format line will once again display on the screen. The list has now been sorted and stored on the disk.

Multi-Level Sort

In addition to sorting on one item of information at one time, with the sort function you have the ability to sort on different fields of information. Multi-level means that the sort can be done on more than one field of information at a time.

In order to designate a multi-level sort, you must identify more than one set of criteria in the sort document. The system will first sort the list based on the first set of criteria and then. Then, if text within the first level is the same, the system will further sort the list based on the second set of criteria or secondary sort. The multi-level sort capability allows you to sort lists into very specific order.

When preparing the sort document, list the particular sorts on consecutive lines, listing the primary, then the secondary, etc. Remember to type the instructions in all caps. Follow the same procedures listed previously for preparing the sort document and storing the list.

Sorting by Line, Word, and Character within a Field

A list will be sorted by the first word in the field unless otherwise specified in the sort document. When indicated, the system allows you to sort a list on other than the beginning word or number in a field. For example, if one field contained a date, you might want to sort only on the year, which is *not* positioned at the beginning of the field. To do this, the position of the year within the date must be indicated in the sort document. The designating words include the following:

FIELD ( )	Indicates the field where the sort information is located within the record.
LINE ( )	Indicates the particular line within the field.
WORD ( )	Indicates the position of the word within the line.
CHARACTER ( ) or DIGIT ( )	Indicates the position of character or Digit within the word or field.
LAST	Instructs the system to sort on the last word of the field.

To Indicate a Specific Sort

Instructions:

1. Type "EXPRESSORT." This tells the system that this is the sort document, then press RETURN.
2. Type the name of the document to be sorted surrounded by quotation marks. This name must be typed exactly as it appears on the Index, including any spaces or punctuation.
3. On the next line, indicate the particular field to be sorted by typing the word "FIELD" in all caps.
4. Type the number of the field to be sorted surrounded by parentheses.
5. Type on the same line as the field designation the required words and values for your particular sort application.

   LINE ( ) WORD ( ) CHARACTER ( )

   Example:

   ```
   EXPRESSORT
   "Letter List"
   FIELD (2) LINE (2) WORD (4) CHARACTER (3)
   ```

6. Continue to enter any other required instructions in the sort document.

Special Sort Application

In many instances, you may have columns of information that must be sorted either alphabetically or numerically. This can be accomplished if these columns are set up as fields of information on input or when edited.

Each row of information would contain an individual field for each column entry. Then, a page end code would separate the rows. The rows would be treated as records within a list and the system would recognize each column with consecutive fields in the row for each column.

Example:

```
Name                    Dept.                   Extension
------------------------------------------------------------
ɛSmith, Billɛ           ɛAccountingɛ            ɛ508ɛ
▮-----------------------------------------------------------
ɛGreene, Gregoryɛ       ɛMarketingɛ             ɛ123ɛ
▮-----------------------------------------------------------
ɛBernhardt, Bethɛ       ɛSalesɛ                 ɛ617ɛ
▮-----------------------------------------------------------
```

Once the columns have been set up in this manner, the sort document would be created as previously explained and a sort could be done on the list of columns.

SECTION 15
DICTIONARY (MODEL 520)

The Exxon 500 Series advanced model 520 provides you with a dictionary feature to help you with the spelling of words in your text and documents. There are actually two different dictionaries contained on the software disk which are:

1. LOOK-UP DICTIONARY
2. SCANNING DICTIONARY

With these two dictionaries, you can look up the spelling of a word as you are typing or scan your entire document when you have finished typing to locate and correct misspellings within the text. Also, you have the ability to edit the dictionaries to add frequently used names, special terms or other unique words that may not be contained in the dictionary. Up to 10,000 additional words can be added in combination to the Look-up and Scanning Dictionaries.

This chapter will describe the use of these two dictionaries in detail, as well as the editing and other dictionary features available to you.

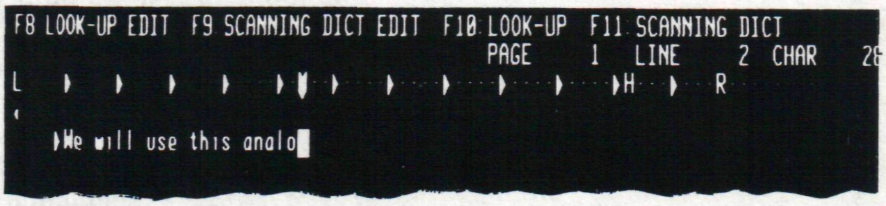
The Look-up Dictionary

The Look-up Dictionary contains thousands of the most commonly used words in the English Language. When you are entering text, you can consult this dictionary to "look-up" the spelling of a word.

To Look up a Word

Instructions:

1. Type as much of the word as you know.
2. Be sure the cursor is to the right of the last character you typed.
3. Press F11 (Dictionary).

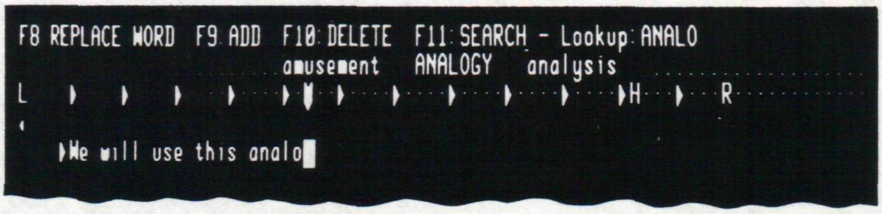


```
F8 LOOK-UP EDIT  F9 SCANNING DICT EDIT  F10 LOOK-UP  F11 SCANNING DICT
                                             PAGE    1  LINE    2  CHAR    2
L  ▶   ▶   ▶   ▶   ▶▼ ▶   ▶   ▶   ▶   ▶   ▶H  ▶  R

  ▶We will use this analo█
```

4. A prompt line will appear on the screen. Press F10 (Look-Up). A string of 3 words will appear on line 2 in the middle of the screen. This is a part of the dictionary that is alphabetically closest to the characters you typed.
5. Now you must look through the dictionary to find the word for which you need the spelling. Use the Cursor Right key to move forward in the dictionary or use the Cursor Left key to move back.

   Note: RESET can be pressed at any time to exit the Look-Up Dictionary.
6. Position the word you are looking for in the middle (CAPITALIZED) of the string at the top of the screen.



```
F8 REPLACE WORD  F9 ADD  F10 DELETE  F11 SEARCH - Lookup ANALO
                         amusement   ANALOGY   analysis
L  ▶   ▶   ▶   ▶   ▶▼ ▶   ▶   ▶   ▶   ▶   ▶H  ▶  R

  ▶We will use this analo█
```

   Note: If you cannot find the word you are looking for, there may be several reasons. First, the portion of the word you already typed may be misspelled and the system was unable to find it, or the word may not be included in the dictionary at all. You can search for another spelling of the word or, if it is not included, add the word to the Look-Up Dictionary. Both of the instructions for these are listed on the next page.
7. When the word you are looking for is located in the middle, press F8 (Replace Word) and the correct spelling will be inserted into your document.

At anytime, words which you use frequently, that are not included in the Look-Up Dictionary can be added for future reference. The system will automatically add the word to the appropriate alphabetical location.

To Add a Word to the Look-up Dictionary

Instructions:

1. Check the proper spelling of the word in a regular dictionary.
2. Press F11, then press F10 to enter the Look-Up Dictionary.
3. Press F9 (Add).
4. A prompt will appear to type the word to be saved. Type the word to be added to the Look-up Dictionary.
5. Press ENTER and the word will be added at the appropriate alphabetical location.

If you wish to search for a particular spelling of a word, this can be done by using the search operation for the Look-up Dictionary.

To Search for a Particular Word in the Look-up Dictionary

Instructions:

1. Press F11 (Dictionary).
2. Press F10 (Look-Up Dictionary).
3. Press F11 (Search).
4. A prompt will appear to type the word you wish to search for. Type as much of the word as you know.
5. Press ENTER. Three words from the dictionary that are alphabetically closest to the word you typed will appear at the top of the screen.
6. Use the Cursor Right or Cursor Left Key to scan through the dictionary until the correct word is located in the middle of the three words and is capitalized.

Editing the Look-up Dictionary

The Look-Up Dictionary has additional space to add words currently not included in the dictionary or other words used frequently. Also, words that are not used or have been entered incorrectly can be deleted from the Look-up Dictionary.

Adding Words: At times there may be several words you want to add to the Look-Up Dictionary. This can be done by adding single words individually or by adding an entire list of words.

To Add a Single Word

Instructions:

1. Press F11 (Dictionary).
2. Press F10 (Look-Up).
3. Press F9 (Add) and a prompt will appear.
4. Type the word to be added.
5. Press ENTER to add the word to the Look-Up Dictionary.
6. Press RESET to exit the dictionary.

To Add a List of Words

Instructions:

1. Clear the screen and press RETURN to leave the top line of the screen blank.
2. Type the words you want to add in a column, pressing RETURN after each word.
3. Position the cursor at the top of the list.
4. Press F11 (Dictionary).
5. Press F8 (Look-Up Edit).
6. Press F8 (Add All Words). The words you typed will be added to the Look-Up Dictionary.

Deleting Words: Occasionally words may be entered into the Look-Up Dictionary incorrectly or a word may have to be deleted for some reason. A word can be deleted from this dictionary whenever required.

To Delete a Word

Instructions:

1. Type the word to be deleted. Be sure the cursor is positioned directly after the last character.
2. Press F11 (Dictionary).
3. Press F10 (Look-up).
4. Press F10 (DELETE).
5. A prompt will appear to type the word to be deleted. Type the exact word you wish to delete.
6. Press ENTER and the word will be permanently removed from the Look-Up Dictionary.

The Scanning Dictionary

Approximately 35,000 words are contained in the Scanning Dictionary. This Scanning Dictionary is used to scan your document for spelling errors. The cursor scans every word and will stop and beep at a word that is spelled incorrectly or at a word not contained in this dictionary.

If the word is misspelled, you can correct the word and continue scanning the document or you can look-up the proper spelling in the Look-up Dictionary and correct it automatically. You may also add the word to the scanning dictionary if it is a special name or word that you use often in your documents or correspondence.

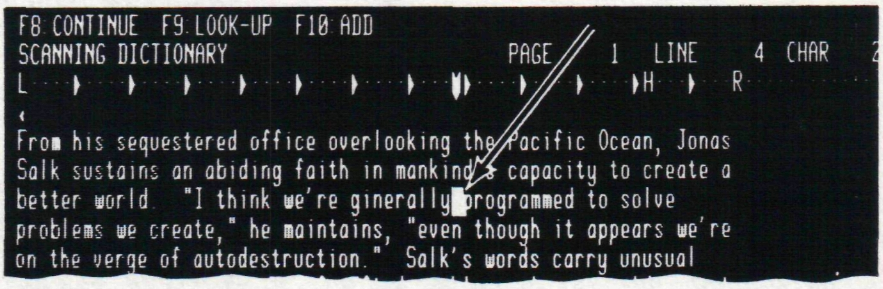
Scanning for Misspellings

After you have completed typing your document, you will want to scan the document for any misspellings or typographical errors.

To Scan for Misspellings

Instructions:

1. Place the cursor at the beginning of the text to be scanned.
2. Press F11 (Dictionary).
3. Press F11 (Scanning Dictionary). Each word in the document will be scanned and the cursor will stop directly after the first misspelling it encounters. Select the scanning option (listed on the next page) you wish to use.



```
F8 CONTINUE  F9 LOOK-UP  F10 ADD
SCANNING DICTIONARY                          PAGE    1   LINE    4  CHAR   2
L···▸····▸····▸····▸····▸····▸····▸···▼▸····▸····▸····▸H··▸··R··········
‹
From his sequestered office overlooking the Pacific Ocean, Jonas
Salk sustains an abiding faith in mankind's capacity to create a
better world.  "I think we're ginerally█programmed to solve
problems we create," he maintains, "even though it appears we're
on the verge of autodestruction."  Salk's words carry unusual
```

Scanning Options

There are several different things you can do when you reach a misspelled word.

1. Skip the word and continue scanning
2. Type in the correction
3. Look-up the word and automatically insert the correction
4. Add the word to the dictionary

To Skip the Word and Continue Scanning

Instructions:

1. After the cursor has stopped at the word, press F8 (Continue).
2. The word will be skipped and the scanning process will continue.

To Type in Correct Spelling

Instructions:

1. Use any of the standard editing features to correct the spelling (CHAR OUT, DEL WORD, etc.).
2. Press F11 (Dictionary), then press F11 (Scanning Dictionary) again to continue the scanning of your document from the point at which it stopped.

To Look-up and Correct a Word

Instructions:

1. When the cursor has stopped for a misspelling, press F9 (Look-up).
2. The word will appear at the top of the screen and the system will go to the closest instance of this word in the Look-up dictionary (3 words will appear at the top of the screen).

   Note: If the word is not in the Look-Up Dictionary, refer back to the instructions previously found in this section that gives the options for the Look-Up Dictionary.
3. Use either the cursor left or cursor right key to move through the dictionary at the top of the screen and locate the proper spelling.
4. Position the proper spelling of the word in the center position (CAPITALIZED).
5. Press F8 (Replace Word) to replace the misspelled word with the correct spelling.
6. Press F11 (Dictionary), then press F11 (Scanning Dictionary) again to continue the scanning of your document from the point at which it stopped.

To Add a Word to the Dictionary

Instructions:

1. When the cursor has stopped at the word, press F10 (add).
2. The word will be added to the dictionary and the system will continue scanning.

Editing the Scanning Dictionary

The Scanning Dictionary has additional space to add words currently not included or other words that are used frequently. Also, words that are not used or have been entered incorrectly can be deleted from the Scanning Dictionary.

To Add Words

Instructions:

1. Clear the screen and press RETURN to leave one line at the top of the screen.
2. Type the word(s) to be added to the Scanning Dictionary with a RETURN following each word.
3. Move the cursor to the top of the list.
4. Press F11 (Dictionary) to access the dictionary functions.
5. Press F9 (Scanning Dictionary Edit).
6. Press F9 (Add all words). The word(s) you typed will be immediately entered into the Scanning Dictionary.

To Delete Words

Instructions:

1. Clear the screen and press RETURN to leave one blank line at the top of the screen.
2. Type the word(s) to be deleted from the Scanning Dictionary with a RETURN following each word.
3. Position the cursor on the first word to be deleted.
4. Press F11 (Dictionary).
5. Press F9 (Scanning Dictionary Edit).
6. Press F10 (Delete all words).
7. A prompt will appear for you to place the cursor on the first word. Be sure the cursor is positioned on the first word and press F11. The cursor will automatically move to the next word.
8. Continue (if applicable) to press F11 to delete each word.
9. When you have done this for each word to be deleted, press RESET to exit the dictionary function.

Scanning Dictionary Report

The Scanning Dictionary report will indicate to you the number of words that are contained in the dictionary and how much space these words occupy on the disk. The words will actually be counted individually in the upper left-hand corner of the screen when the report is generated.

To Issue a Scanning Dictionary Report

Instructions:

1. Press F11 (Dictionary).
2. Press F9 (Scanning Dictionary Edit).
3. Press F8 (Dictionary Report). The words will be counted individually.

   Note: RESET can be pressed to interrupt and cancel the count at any time.

   When the system has finished counting the words, a message will appear listing the number of words contained in the Scanning Dictionary and the percentage of space these words occupy within the dictionary.
4. Press RETURN to continue.

SECTION 16
MATHEMATICS OPERATIONS (Model 520 Only)

The mathematics function allows you to perform three different types of mathematical operations on the screen. These three operations include:

1. Horizontal Math
2. Vertical Math
3. Calculator Math

The three mathematical operations will help you to do simple calculations on various charts, tables, or for special calculations to insert in text.

Also available is a special Numeric keypad which is structured like a calculator or adding machine and can be used for rapid entry of numbers.

This section will describe the operations and procedures for each of these individual math operations, as well as the use of the Numeric keypad.

General Math Principles

The entire mathematics function must be accessed before making a selection for one of the particular math features.

To Access the Mathematics Mode

Instructions:

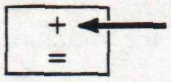
1. Press CODE + F10

   A prompt will appear listing the function keys for the various mathematical calculation methods.

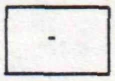
Using the mathematical function, numbers can be calculated using these four methods of operation:

- Addition
- Subtraction
- Multiplication
- Division

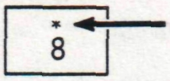
Certain keys are used to perform these functions. They are:



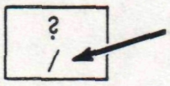
The plus key is used to add figures.



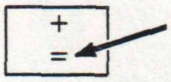
The minus key is used to subtract figures.



The "*" key is used to multiply figures.



The slash is used to perform division.



The equals key is used to complete a calculation and display the answer.

Also, When you have accessed the numeric keypad, certain keys on this keypad will perform the various mathematical functions as well as a percentage function. The use of the Numeric Keypad is described at the end of this section.

Setting Number of Decimal Places

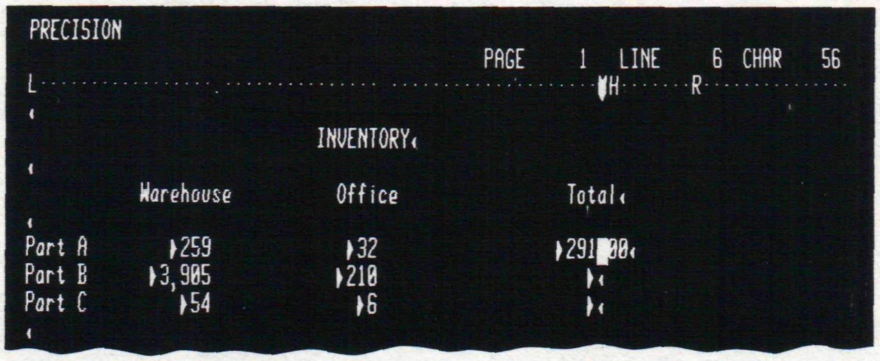
The number of decimal places to be calculated can be selected through the precision setting. This precision setting will allow you to indicate how many digits to be calculated after the decimal point. From 0 to 9 decimal places can be selected. If no selection is made, the default setting is 2 decimal places.

142.98	Default setting of 2
1,980.009	Precision setting of 3
27.20980	Precision setting of 5
4	Precision setting of 0

To Set the Number of Decimal Places

Instructions:

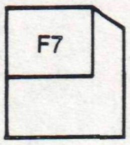
1. Access the mathematics function by pressing CODE + F10.
2. Press F8 (Precision).
3. The word PRECISION will appear at the top of the screen. Type the number of digits you wish to follow the decimal point.
4. The math prompts will return to the screen. Continue on with the specific instructions for the particular math operation you are performing.



```
PRECISION
                                           PAGE     1   LINE     6  CHAR    56
L·····································▼H·······R··············
◂
                          INVENTORY◂
◂
               Warehouse            Office              Total◂
◂
Part A            ▸259               ▸32             ▸291█00◂
Part B          ▸3,905              ▸210                ▸◂
Part C             ▸54                ▸6                ▸◂
◂
```

Toggling Through the Math Operations

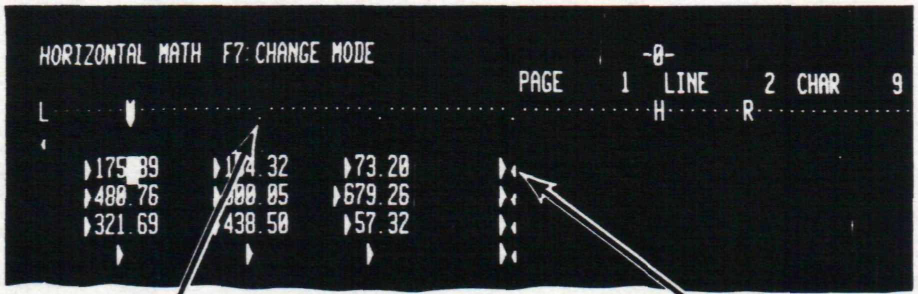
A chart of columns to be calculated may require more than 1 math operation to be performed on the entire chart. With the 500 Series, once the math function is selected, you can toggle through the three operations (horizontal, vertical, and calculator) by pressing:



Pressing this key will allow you to select one of these three operations without exiting the mathematics function.

Formatting Text to be Calculated

Using the mathematics function in horizontal and verticle math, the numbers *must* be set up in columns using a decimal tab. This is the only tab that will function using the math mode. Also, you must tab to and leave a blank space where you want the answers to appear.



```
HORIZONTAL MATH  F7:CHANGE MODE                          -0-
                                         PAGE    1  LINE     2  CHAR     9
L
    175.89       1[illegible]4.32    73.20
    480.76       [illegible]00.05   679.26
    321.69       438.50      57.32
```

Decimal tabs

Blank tab settings

Negative Numbers

The system will recognize certain numbers as negative when they are:

- Preceded by "-"
- Enclosed in "( )"
- Enclosed in "< >"

These numbers will be calculated during horizontal and vertical math with a negative value.

Horizontal Math

The horizontal math function will enable you to calculate a horizontal total across a row of several columns of numbers.

To Horizontally Calculate a Row of Numbers

Instructions:

1. Be sure the number of decimal places to be calculated has been entered using the precision operation explained previously in this section.
2. Press the TAB key to move the cursor to the first number to be calculated.

   EXAMPLE:

   ▶11$\boxed{.}$00 ▶275.35 ▶375.42
3. Be sure you have accessed the mathematics function by pressing CODE + F10.
4. Press F11 to select horizontal math. A zero (-0-) will appear at the top of the screen which represents an accumulator.
5. Press the "+" key to enter the first number into the accumulator. Press "-" if it is a negative number.
6. Press the key which represents the operation you wish to perform:

   + Addition
   - Subtraction
   * Multiplication
   / Division

   The cursor will automatically move to the next number to be calculated in the row. The calculated total so far will appear at the top of the screen in the accumulator.
7. Continue to follow steps 4 & 5 to finish with the horizontal calculation in the row.

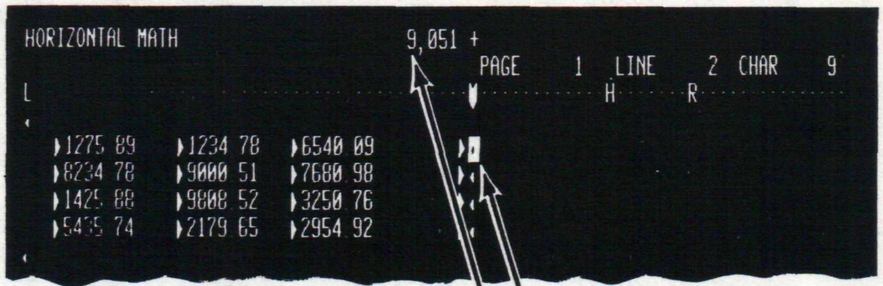
   Note: The cursor right key and TAB key may be used to skip over an entry which is not to be included in the calculation. Using this key, move the cursor to the decimal point in the next entry to be calculated, then continue.

(**Continued on page 16**/6)

8. When the cursor is positioned where you want the answer to appear, press the "=" (equals) key. The answer will appear immediately in your text.

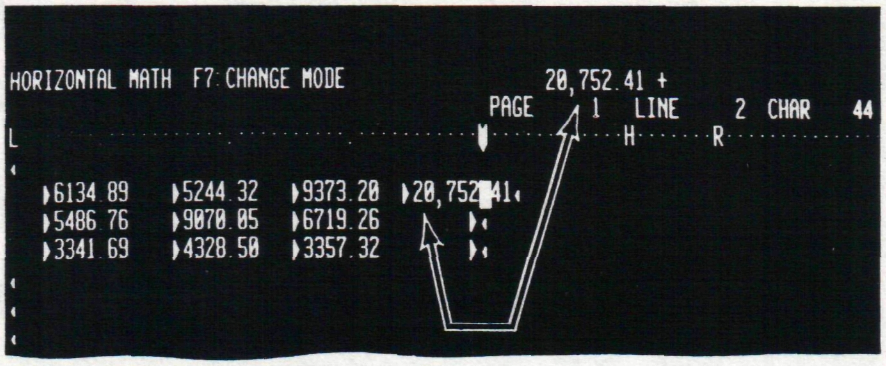
9. Press RESET to exit the mathematics function or F7 to toggle into another math operation. The cursor control keys may be used to move the cursor to the decimal place of the next number to be calculated.

   Note: CHAR OUT may be used to clear out the accumulator without exiting the math functions if required for your calculations.



```
HORIZONTAL MATH                         9,051 +
                                             PAGE    1  LINE    2  CHAR    9
L
◂
   ▸1275.89    ▸1234.78    ▸6540.09         ▸
   ▸8234.78    ▸9000.51    ▸7680.98         ▸◂
   ▸1425.88    ▸9808.52    ▸3250.76         ▸◂
   ▸5435.74    ▸2179.65    ▸2954.92         ▸◂
◂
```

Press equals to display answer



```
HORIZONTAL MATH  F7 CHANGE MODE                   20,752.41 +
                                             PAGE    1  LINE    2  CHAR   44
L
◂
  ▸6134.89    ▸5244.32    ▸9373.20   ▸20,752.41◂
  ▸5486.76    ▸9070.05    ▸6719.26           ▸◂
  ▸3341.69    ▸4328.50    ▸3357.32           ▸◂
◂
◂
◂
```

Vertical Math

The vertical math function will enable you to calculate a vertical total for a column of numbers.

To Vertically Calculate a Column of Numbers

Instructions:

1. Be sure the number of decimal places to be calculated has been entered using the precision operation explained previously in this section.
2. Press the TAB key to move the cursor to the first number to be calculated.

   EXAMPLE:

   ```
   ▶ 65.39
   ▶ 745 . 90
   ▶ 175 . 10
   ▶
   ```

3. Be sure you have accessed the mathematics function by pressing CODE + F10.
4. Press F10 to select vertical math. A zero (-0-) will appear at the top of the screen which represents an accumulator.
5. Press the "+" key to enter the first number into the accumulator. Press "-" if it is a negative number.
6. Press the key which represents the operation you wish to perform:

   + Addition
   - Subtraction
   * Multiplication
   / Division

   The cursor will automatically move to the next number in the column to be calculated. The calculated total so far will appear at the top of the screen in the accumulator.

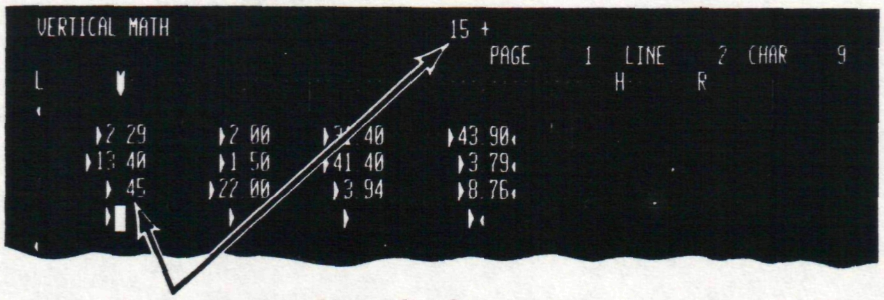
7. Continue to follow steps 5 & 6 to finish with the vertical calculations in the column.

   Note: The cursor down key and TAB key may be used to skip over an entry which is not to be included in the calculation. Using this key, move the cursor to the next decimal point in the entry to be calculated, then continue.

(**Continued on page 16**/8)

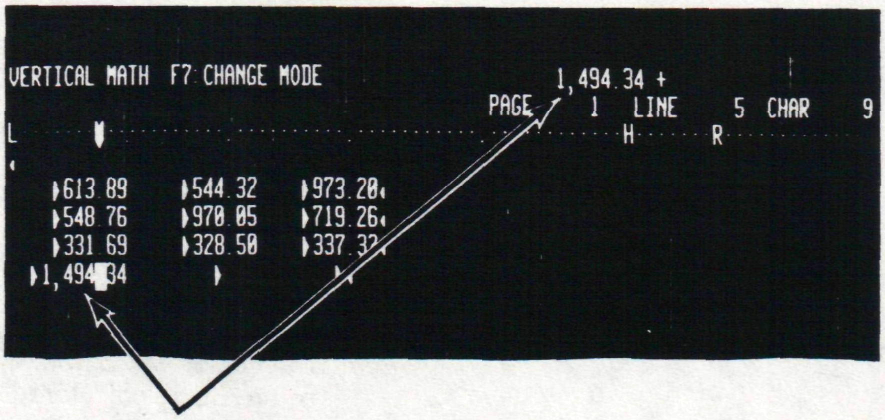
8. When the cursor is positioned where you want the answer to appear, press the "=" (equals) key. The answer will appear immediately in your text.
9. Press RESET to exit the mathematics function or F7 to toggle into another math operation. The cursor control keys may be used to move the cursor to the decimal place of the next number to be calculated.

   Note: CHAR OUT may be used to clear out the accumulator without exiting the math functions if required for your calculations.



```
VERTICAL MATH                              15 +
                                              PAGE     1  LINE     2  CHAR     9
L       ▼                                                  H        R
◂
        ▸2.29        ▸2.00      ▸3[illegible].40      ▸43.90◂
       ▸13.40        ▸1.50      ▸41.40      ▸3.79◂
        ▸.45        ▸22.00       ▸3.94      ▸8.76◂
        ▸█            ▸           ▸          ▸◂
◂
```

Press equals to display answer



```
VERTICAL MATH  F7:CHANGE MODE                     1,494.34 +
                                              PAGE     1  LINE     5  CHAR     9
L       ▼..............................................H........R..........
◂
    ▸613.89      ▸544.32     ▸973.20◂
    ▸548.76      ▸970.05     ▸719.26◂
    ▸331.69      ▸328.50     ▸337.32◂
  ▸1,494█34         ▸           ▸
```

Calculator Math

The calculator math operation gives you the ability to calculate any string of numbers at the top of the screen using the four mathematical functions of addition, subtraction, multiplication, or division.

Using the calculator math operation you can quickly and easily compute an answer at any time when you are working on a document.

The numbers will be calculated at the top of the screen as you enter them and the answer will appear at the top as well. If you want to insert this answer into text field codes, CODE + F must be included in the text where the total is to be inserted. If the field codes are not inserted, the line will be deleted. Once this total has been inserted into text and you have exited the math function, these field codes can be deleted.

To Use the Calculator Math Function

Instructions:

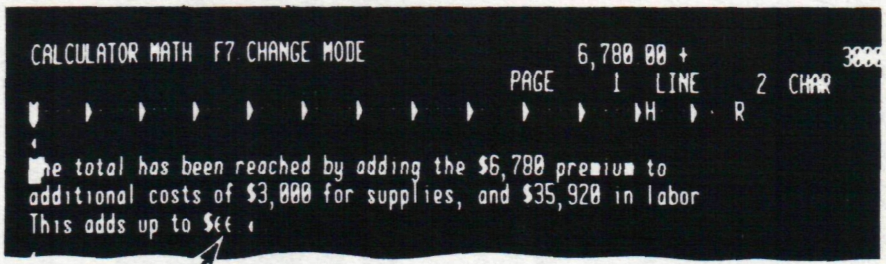
1. Be sure the number of decimal places to be calculated has been entered using the precision operation explained previously in this section.
2. Access the mathematics function by pressing CODE + F10 if it has not already been selected.
3. Press F9 to select Calculator Math.
4. Type the first number to be calculated. The number will appear in the upper righthand corner of the screen. BACKSPACE to correct any errors in entering the number.
5. Press the "+" key to enter the first number into the accumulator. Press "-" if it is a negative number.
6. Type the next number to be calculated and the operation key.

   + Addition
   - Subtraction
   * Multiplication
   / Division

7. Continue to follow these steps to finish your calculation.
8. After you have finished entering all of the numbers to be calculated, press the "=" (equals) key to see the answer at the top of the screen.

(**Continued on page 16**/10)

9. This answer can be inserted into a chart by toggling into another math operation and pressing F7. Then position the cursor on the tab where you want the answer to appear and press "=." If the answer is to be inserted directly into written text, be sure field codes (CODE + F) have been positioned at the place in the text where the total is to be inserted, then press "=".
10. If you are using any other operation other than addition, press CHAR OUT to clear the accumulator and begin another calculation or press RESET to exit the mathematics function. If you wish to toggle to another math operation, press F2.



```
CALCULATOR MATH  F7 CHANGE MODE                    6,780 00 +          3000
                                               PAGE    1  LINE    2  CHAR
▼ ▸  ▸  ▸  ▸  ▸  ▸  ▸  ▸  ▸  ▸  ▸H  ▸ R
‹
█he total has been reached by adding the $6,780 pre■iu■ to
additional costs of $3,000 for supplies, and $35,920 in labor
This adds up to $(( ‹
```

Field codes

Numeric Keypad

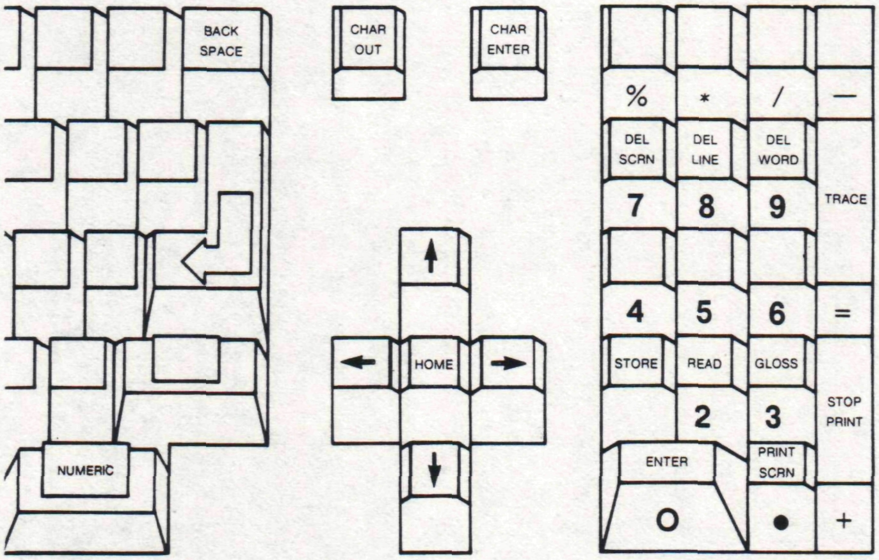
The Numeric keypad can be accessed by using the special NUMERIC key located at the lower right-hand corner of the Modified Typewriter keys. When this is depressed, all of the keys on the Screen/Numeric keypad will assume the numeric value inscribed on the front of the key. A light on the NUMERIC key will be lit to indicate you are in the numeric mode.

The Numeric keypad is structured like a calculator or adding machine, so if you are entering numeric data, this numeric keypad will speed your entry. Also, included on the Numeric Keypad are keys which represent the mathematical functions of addition (+), subtraction (-), division (   ), multiplication (*), equals (=) and percent (%). A decimal point (.) is on the Numeric Keypad as well. When you are using the numeric keypad, the entire keyboard, with the exception of the screen keys, will be available for you to use.

To Access the Numeric Mode

Instructions:

1. Press the NUMERIC Key located in the lower right-hand corner of the Modified Typewriter keys. The red light on the key will light to indicate that you have selected the Numeric Mode.
2. Use the Numeric Keypad to enter your numeric text.



To Exit the Numeric Mode

Instructions:

1. Press the NUMERIC key again to exit the numeric mode. The red light will go out and all of the keys will once again perform the screen functions.

Numeric Keypad

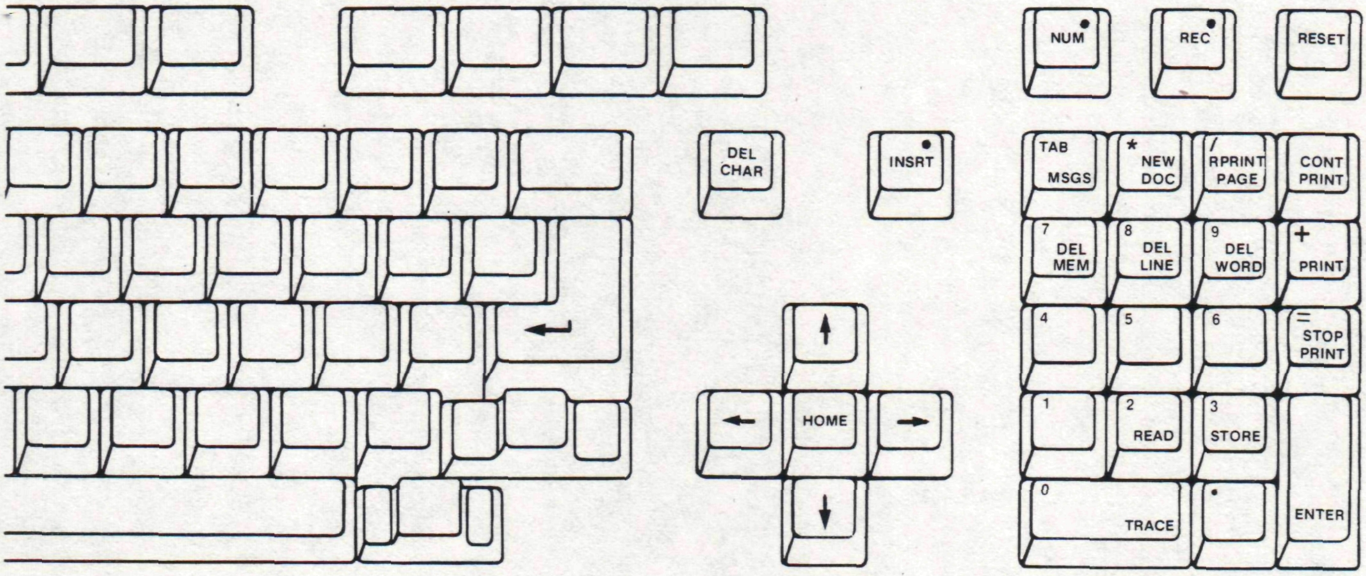
The Numeric Keypad can be accessed by using the special NUMERIC key located above the MSGS key. When this is pressed, all of the keys on the Screen/Numeric Keypad will assume the numeric value inscribed on the top right corner of the keycap. An indicator on the NUMERIC key will light, confirming numeric mode.

The Numeric Keypad is structured like a calculator or adding machine, so if you are entering numeric data, the Numeric Keypad will speed your entry. Also, included on the Numeric Keypad are keys representing the mathematical functions of addition (+), substraction (-), division (/), multiplication (*), and equals (=). A decimal point (.) is on the Numeric Keypad as well. When you are using the numeric Keypad, the entire keyboard, with the exception of the screen keys, will be operational.

To Enter the Numeric Mode

Instructions:

1. Press the NUM (Numeric) key located above the MSGS key. The red light on the key will light to indicate Numeric Mode.
2. Use the Numeric pad to enter your numeric text.


NUM
REC
RESET
DEL CHAR
INSRT
TAB MSGS
* NEW DOC
/ RPRINT PAGE
CONT PRINT
7 DEL MEM
8 DEL LINE
9 DEL WORD
+ PRINT
4
5
6
= STOP PRINT
HOME
1
2 READ
3 STORE
0 TRACE
.
ENTER

To Exit the Numeric Mode

Instructions:

1. Press the NUM (Numeric) key again to exit the Numeric Mode. The red light will go out and all of the keys will once again perform the screen functions.

SECTION 17
KEYSTROKE SEQUENCE PROGRAMMING (Model 520)

Keystroke sequence programming, a feature available on the Model 520, is a method of capturing the keystrokes you use frequently to do a particular operation. This means that if you have a task that requires the same keystrokes each time it is completed, you can type the instructions just *once* and store them. Then, each time you have to perform this operation, all you do is indicate to the system which program to use. The system will automatically follow the same keystrokes you had previously stored.

There are 3 steps to follow in keystroke sequence programming which are:

1. Define *each* step required to complete the operation.
2. Create and store the program document.
3. Run the program to perform the operation.

Defining Steps to be Programmed

One of the most important steps in the programming of keystrokes is properly defining the steps to be included. *All* of the steps involved in an operation *must* be included in the proper order in the program. For example, to read a document from the Index, there are 3 steps involved. They are:

1. Access the Index.
2. Move the cursor to a document name.
3. Read the document to the screen.

Once you have determined all of the steps required, you must then define what keystrokes are used to perform these operations.

EXAMPLE:

F1	To access the Index.
CURSOR DOWN (4)	To move the cursor down 4 lines to the document name.
F5	To read the document to the screen.

Once you have determined all of these steps, you can begin to create the program document.

Creating the Program Document

The program document contains a written representation of each keystroke required to perform a particular operation. Each keystroke is typed on a separate line in all caps; then, the entire program is stored as a standard document in the Index.

The Beginning Statement

At the beginning of every program, the word "PROGRAM" must appear. This is typed in uppercase on the first line and is immediately followed by a RETURN.

Designating Keystrokes

Each keystroke that the system must perform for an operation must be typed on a separate line in the program document. These keystrokes are typed in all caps and are followed by a RETURN. The various keystrokes are designated by certain abbreviations called keywords which will be explained in detail in this section.

Function Keys: The operation of a function key is designated by typing the number of the key. For example, to indicate to the system to access the tab grid, "F5" would be typed in the program.

All functions accessed by the top row of the function keys are represented by typing the word "CODE" followed directly by the number of the key. All alphabetic characters in the keyword *must* be typed in uppercase. Below you will see a listing of the accepted function key values for keystroke programming:

Function	Type
Index Operation	F1
Search & Replace	F2
Go To	F3
Block Operations	F4
Column Mode	CODEF4
Tabs	F5
Margin/Indent	CODEF5
Adjust	F7
Status Menu	CODEF7
Header/Footer/Footnotes	F8
Applications	F10
Math	CODEF10
Dictionary	F11
Explain	F12
Utilities	CODEF12
Reset	RESET

Screen/Numeric Keys: The function of the keys contained on the Screen/Numeric keypad are indicated by simply typing the titles which appear on the top of the keycap in all caps with no spaces.

Function	Type
Delete Screen	DELSCRN
Delete Line	DELLINE
Delete Word	DELWORD
Trace	TRACE
Store	STORE
Read	READ
Glossary	GLOSS
Print Screen	PRINTSCRN
Stop Print	STOPPRINT
Enter	ENTER

Cursor Keys: When programming keystrokes, the direction the cursor is to be moved is indicated by typing the actual direction in all caps. This will move the cursor either one line or one character position, depending on the direction desired. To move the cursor multiple positions, just type the direction, followed by the number of positions to be moved in parentheses.

EXAMPLE:

DOWN (4)	To move the cursor down four lines.

The cursor directions are indicated in the program using the following terms:

Function	Type
Cursor Up	UP
Cursor Down	DOWN
Cursor Left	LEFT
Cursor Right	RIGHT
HOME	HOME

Coded Keys: All operations that require coded keystrokes are represented in the program by typing the word "CODE" followed by the key required to implement the coded function. This is typed in all caps with no spaces separating the word "CODE" and the keystroke. The coded function and the value to be typed are listed below:

Function	**Type**
Bold	CODEB
Center	CODEC
Divide Document	CODE/
Document Select	CODEHOME
Field Mark	CODEF
Index, Next Page	CODEDOWN
Index, Previous Page	CODEUP
Merge Mark	CODEM
Optional Text	CODE.(Period)
Overstrike	CODEO
Page Break, Required	CODER
Page Break, Temporary	CODET
Page Number	CODE#
Reverse TAB	CODETAB
Required Backspace	CODEBACKSPACE
Required Space	CODESPACE
Stop Code	CODE,(Comma)
Subscript	CODED
Superscript	CODEE
Temporary Hyphen	CODE-(Hyphen)
Underline	CODEU

Miscellaneous Keys/Operations: The editing keys and certain standard keys are represented by typing the exact keystroke in all caps. These include:

Function	**Type**
Character Out	CHAROUT
Character Enter	CHARENTER
Backspace	BACKSPACE
Return	RETURN
Tab	TAB

A special instruction can be inserted in the program document to initiate a tone (beep) at a certain point within the program. This can be used at various places to indicate that a particular operation is beginning or for any other reason when required. The tone is specified in the program by typing the word "BEEP" in all caps on a separate line. When the program is run, the system will beep at the point where the instruction is given.

Standard Alpha/Numeric Keys: Any characters from the Standard Typewriter Keys that are to be typed on the screen should be typed exactly as they are to appear surrounded by quotation marks. The characters are typed on the line where they are required within the program document.

EXAMPLE:

"Memo 1" This could be typed for a document name.

The End Statement

There are 2 methods of ending a program which include:

1. Stop Statement
2. Loop Statement

The stop statement is utilized by typing the word "STOP" on the last line of the program. This will terminate the program immediately after it has been completely executed.

The loop statement will indicate to the system to continually loop the program back to the beginning so it can automatically be repeated. This might be used for an operation that must be repeated consecutively. It is activated in the program by typing the word "LOOP" at the end of the program document. In this case, RESET must be pressed to discontinue the program.

Sample Program

To give you an example of how to capture keystrokes, this program will perform a global search and replace on a short document, which does not exceed the buffer limit. The cursor is placed on the first line of the document and the program is run.

PROGRAM	(This statement begins the program)
F2	(Accesses Search & Replace Function)
F5	(To enter Search String)
"EXXON"	(Types word to be searched for)
ENTER	(Enters search string)
F6	(To enter replace string)
"EXXON OFFICE SYSTEMS"	(Types replacement text)
ENTER	(Enters replacement string)
F4	(Performs Global Search & Replace on text)
BEEP	(To make system beep to indicate Search & Replace has been completed)
RETURN	(To continue)
STORE	(To store new text)
"Y"	(Answer yes to update the original)
STOP	(To end the program)

To Create a Program Document

Instructions:

1. Define all of the steps to be programmed.
2. Clear the screen.
3. Type the word "PROGRAM" on the first line of the document, and then press RETURN.
4. Type the appropriate keystrokes.
   - Type each instruction on a line by itself.
   - Type all function instructions in all caps.
   - Surround any characters to be typed on the screen with quotation marks.
5. Type an end statement (either LOOP or STOP).
6. Press STORE.
7. Type a name for the program document.
8. Press ENTER.

After a program has been created, this program should be "test run" using a test document. This is to be sure the program runs correctly and no instructions are mistyped or accidentally omitted.

Special Document Storage Procedures

One thing that must be accounted for when running a program is the text storage on an existing document. There is the possibility that the system may request for text storage (i.e., Update or Overstore the Original?) during the execution of the program. If this prompt occurs during the execution of a program, the system will begin reading the program statements for an appropriate response and any "y" or "n" would be accepted as a response. This could cause problems and perhaps even cause you to lose valuable text accidentally. Therefore, you must decide either before you run the program or within the program document itself what storage method you want to choose. There are two methods for doing this which depend on the amount of text in the document and if it exceeds the buffer limit (6,000 characters) or not. These two methods are described below.

If Document Exceeds the Buffer Limit

Instructions:

1. Read the document to the screen by pressing F1 to access the Index, then move the cursor to the document name and press F5.
2. Press F3 (GO TO).
3. Press F5 (END DOC) to go to the end of the document.
4. A prompt will be issued to update the original. Answer either with a "y" to update and overstore the original or with an "n" to create a new document.
5. Press F3 (GO TO).
6. Press F6 (BEGIN DOC) to go to the beginning of the document.
7. Run the program by following the instructions listed at the end of this section.

If Document is Less Than the Buffer Limit

Instructions:

1. Read the document to the screen by pressing F1 to access the Index, then move the cursor to the document name and press F5.
2. Press F4 (Block Operations). The update prompt will appear.
3. Answer the prompt by typing either a "y" to update and overstore the original or "n" to create a new document.
4. Press RESET to exit the Block Operations.
5. Run the program by following the instructions at the end of this section.

Running the Program

Once the program document has been created and stored, it can be run whenever necessary using the Run Program function in the Index operations. Once you have identified the program document and initiated the run program command, the system will automatically perform all of the steps in the program.

To Run the Program

Instructions:

1. Read the document on which the program is to be executed to the screen, if these steps are not included in the program document. Clear the screen if keywords for this procedure are included in the program document.

   Note: The reading of a document to the screen can be included in the program if desired. However, if the disk is to be used frequently, the position of the document name on the Index may change, thus requiring the program document to be edited accordingly.
2. Perform storage procedures if required as explained previously.
3. Press F1 to access the Index.
4. Move the cursor to the name of the program document. Be sure this is a valid program document with all of the necessary keywords included. If an invalid program is executed, any text which was on the screen will be lost.
5. Press F9:RUN PROGRAM.
6. Answer "Y" to confirm your selection. The system will perform all of the operations in the program.

Note: RESET can be pressed at any time to terminate the program.

SECTION 18
FRAME OPERATIONS

Introduction

NOTE: Your EXXON system must be equipped with Level 3F, 3FM or 3FMS software to perform the operations described in this section.

Frame Operations allow you to isolate selected areas of text within a frame you create on your CRT screen. Once you have defined the frame, you can edit or copy the text within the frame, or move it to another location within the document. Framing is especially useful when you are working with documents that contain columns, tables, charts or multilevel equations.

When you set up a frame, vertical bars define the left and right borders, and lines of hyphens define the top and bottom borders. The frame sits on top of surrounding text but does not alter its content. The text within the frame can be moved to other parts of the document while leaving the original text in place.

Frame Operations are similar to Block Operations, but allow you to define an area of text by both length and width.

To begin Frame Operations, press CODE + F3 and follow the instructions to define a frame.

Defining the Frame

A frame can include any screen area up to 17 lines long and 80 characters wide. If you try to extend the frame beyond these screen boundaries, the system beeps and prevents you from extending the frame.

Instructions:

1. Press CODE + F3:FRAME OPERATIONS. These prompts are displayed:

```
                F3:DEFINE   F4:OPEN EXISTING
```

   (F4:OPEN EXISTING is not currently functional.)

2. *A storage prompt may appear. Answer* Y *or* N *accordingly.*
3. Press F3:DEFINE.
4. In response to the prompt, move the cursor to the upper left corner of the text you want to frame.
5. ENTER. An arrow marks the upper corner and the text shifts one space to the right.
6. When you are prompted, move the cursor to the lower right corner of the text you want to frame.

   A frame must be at least one character wide. If it is not, an error message instructs you to try different corners.

7. ENTER. An arrow marks the lower corner and a rectangular frame is displayed around the text.

Once you have defined a frame, the original text is copied into it. Now you have a framed copy of the text in addition to the original text, which lies unseen behind the frame and is called *shadow* text. Once text is framed, you can perform any of the functions on the operator prompt line.

You can exit from Frame Operations by pressing RESET.

Framing Functions

Now you can edit, move, insert, replace, copy or clear the text you have framed by choosing the appropriate function from the prompts on the screen.

```
F1:MOVE F2:CLEAR F3:EDIT F4:DEL SHADOW F5:BLANK SHADOW F6:SET
```

F1:MOVE allows you to position and copy the framed text in another area of the screen or document.

F2:CLEAR allows you to delete the text within the frame.

F3:EDIT allows you to edit the contents of the frame.

F4:DEL SHADOW allows you to delete the shadow text. The text immediately to the right moves over and replaces it.

F5:BLANK SHADOW deletes the shadow text and leaves dotted spaces in its place. These coded spaces are printed as blanks. The text to the right of the frame is not affected.

F6:SET allows you to insert the frame contents into existing text or replace text with the frame contents.

Moving the Frame

You can move framed text anywhere within the document. The shadow text behind the frame remains in place. If you want to delete the shadow text before moving the frame, see "Deleting Shadow Text" later in this section.

When you select the F1:MOVE function, these three options are available:

> F1:MOVE FRAME allows you to move the frame anywhere within the screen boundaries. If you reach a boundary and the frame is not yet in its proper place, press F2:MOVE DOC.
>
> F2:MOVE DOC allows you to scroll the document past the frame. The document scrolls only as far as there are RETURNs. Be sure to insert RETURNs in the document before moving it past the frame.
>
> F3:RETURN TO OPERATIONS allows you to return to the prompts for the main framing functions.

Instructions:

1. Press CODE + F3:FRAME OPERATIONS.
2. A storage prompt may appear. Answer Y or N accordingly.
3. Press F3:DEFINE and define the frame in response to the prompts.

   The prompts for the main framing functions are displayed:

```
F1:MOVE F2:CLEAR F3:EDIT F4:DEL SHADOW F5:BLANK SHADOW F6:SET
```

4. Press F1:MOVE to display these options:

```
F1:MOVE FRAME   F2:MOVE DOC   F3:RETURN TO OPERATIONS
```

5. Press F1:MOVE FRAME and these prompts are displayed:

```
F2:MOVE DOC   F3:RTN TO OPERATIONS   F4:COPY
```

   Use the cursor control keys to move the frame up or down, left or right within the screen boundaries.

   If you reach a screen boundary during MOVE FRAME, the system prompts you to use F2:MOVE DOC.

6. Press F2:MOVE DOC and these prompts are displayed:

```
F1:MOVE FRAME   F3:RTN TO OPERATIONS   F4:COPY
```

   Use the cursor control keys to scroll the document left or right, up or down. The frame remains stationary.

   Use F1:MOVE FRAME and F2:MOVE DOC as necessary to position the frame.

7. Press either F3:RTN TO OPERATIONS to display the main framing prompts or F4:COPY (refer to the next section, "Copying the Frame").

You can exit from Frame Operations by pressing RESET.

Copying the Frame

You can copy the contents of a frame within a document as often as necessary. This operation is especially helpful in preparing equations and repetitious charts and tables. When you copy the frame, however, the material behind the frame is deleted. If you want to insert the frame into existing text and preserve the shadow text, use the insertion method described in "Setting the Frame."

Instructions:

Steps for defining and moving a frame are abbreviated. Refer to the sections on those operations for detailed instructions.

1. Press CODE + F3:FRAME OPERATIONS.
2. A storage prompt may appear. Answer Y or N accordingly.
3. Press F3:DEFINE and define the frame in response to the prompts.
4. Press F1:MOVE to display the MOVE options.
5. Press F1:MOVE FRAME or F2:MOVE DOC to move the frame to its new location.
6. Press F4:COPY. The frame contents are copied in the new location.
7. Move the frame to another location.
8. Press F4:COPY. The frame contents are copied again. Continue to move and copy as needed.
9. RESET to discard the frame and its contents. Copies of the frame contents remain on the screen.

You can exit from Frame Operations by pressing RESET.

Setting the Frame

There are two ways to set or fix a frame. You can either insert the frame into existing text or replace existing text with the contents of the frame.

When you insert a frame into existing text, text behind the frame shifts to the right. The frame dissolves, leaving its contents in place. A frame that replaces existing text behaves exactly the same, but any shadow text behind the frame is overwritten.

Instructions:

Steps for defining and moving a frame are abbreviated. Refer to the sections on those operations for detailed instructions.

1. Press CODE + F3:FRAME OPERATIONS.
2. A storage prompt may appear. Answer Y or N accordingly.
3. Press F3:DEFINE and define the frame in response to the prompts.
4. Press F1:MOVE to display the MOVE options.
5. Press F1:MOVE FRAME or F2:MOVE DOC and move the frame to its new location.
6. Press F3:RTN TO OPERATIONS to display the main prompts.
7. Press F6:SET. These prompts are displayed:

```
F1:INSERT   F2:REPLACE   F3:RETURN TO OPERATIONS
```

8a. Press F1:INSERT to insert the frame into existing text. Type Y to confirm insertion. The frame dissolves and leaves its contents. Text that was behind the frame shifts to the right.

Type N and the prompts are displayed.

OR

8b. Press F2:REPLACE to set the frame and replace the existing text. Type Y to confirm replacement. The frame dissolves and leaves its contents. Any text behind the frame is overwritten.

Type N and the prompts are displayed.

You can exit from Frame Operations by pressing RESET.

Editing the Frame

Frame editing is particularly useful for sections of columns, tables, charts or equations.

Editing text within a frame is similar to normal text editing. Text slides left or right when characters are deleted or inserted, but only the text within the frame is affected. Once the frame is defined, the format line indicating the left and right margins, tab settings and hot zone reflect the boundaries of the frame, not the screen.

Format markers, including headers, footers, footnotes and those associated with Document or Printer Status menus, are not copied into the frame, so you won't see any format markers in Trace Mode when text is framed. For example, if a portion of text containing multiple tab settings is framed and moved to a new location, the tab set format markers are not moved with it.

An exception to this is font change format markers. If you are using software that enables you to change fonts within a document, these format markers are copied into the frame and move with it.

When defining a frame, be sure the boundaries are large enough to accommodate the text you want to add. Although reading text into the frame (using the READ key, for example) is not limited by the size of the frame, any text that extends outside the frame boundaries (indicated by a wavy line) is lost when the frame is dissolved. This is also true for any proportionally spaced text that extends beyond the frame boundaries.

Instructions:

Steps for defining a frame are abbreviated. Refer to the section on that operation for detailed instructions.

1. Press CODE + F3:FRAME OPERATIONS.
2. A storage prompt may appear. Answer Y or N accordingly.
3. Press F3:DEFINE and define the frame in response to the prompts.
4. Press F3:EDIT. (No prompts are displayed.)
5. Edit the text as required.
6. When editing is complete, press CODE + F3 and the main framing prompts are displayed.
7. You may now choose another Frame Operations option or set the frame.

To remove a frame after editing, press CODE + F3 to return to Frame Operations. Then RESET to exit.

Deleting the Shadow Text

Shadow text is the text that lies behind the framed text. Before you move the frame, you may want to delete the shadow text. *There are two methods of deleting shadow text.*

Delete Shadow deletes the text behind the frame and moves text from the right into the area.

Blank Shadow deletes the text behind the frame and leaves dotted spaces that do not affect the surrounding text. These dots are not printed; blank spaces are inserted in the document.

Instructions:

Steps for defining a frame are abbreviated. Refer to the section on that operation for detailed instructions.

1. Press CODE + F3:FRAME OPERATIONS.
2. A storage prompt may appear. Answer Y or N accordingly.
3. Press F3:DEFINE and define the frame in response to the prompts.
4. Press F4:DELETE SHADOW to delete the shadow text and have the text to its right move over to occupy the framed spaces, or

   Press F5:BLANK SHADOW to delete shadow text and leave blank space in its place.
5. Type Y to confirm deletion of the shadow text.

Clearing the Frame

This option allows you to delete the contents of a frame. Clearing the frame, however, only clears the text within the frame. The original text or shadow text remains unaffected.

Instructions:

Steps for defining a frame are abbreviated. Refer to the section on that operation for detailed instructions.

1. Press CODE + F3:FRAME OPERATIONS.
2. A storage prompt may appear. Answer Y or N accordingly.
3. Press F3:DEFINE and define the frame in response to the prompts.
4. Press F2:CLEAR
5. Respond Y to confirm clearing the frame.

SECTION 19
APPLICATION CHARACTER SETS

Introduction

NOTE: This section applies only to users of EXXON systems equipped with software level 3FMS. Application characters can be printed only by the EXXON 965 Printer.

Technical and scholarly documents often require symbols and characters not normally available from most information processors. Your EXXON 965 Printer, however, can print a wide range of scientific letters, signs and symbols. These are called application characters. In this section you will learn what these application characters are, how to change them and how to type application characters and multilevel equations.

What are Application Character Sets?

An application character set is a group of special characters produced by a font installed in the printer. The application character sets available for your 965 Printer are:

- **Greek/Math** has two character sets, SCIENTIFIC1 and SCIENTIFIC2. These sets offer you a complement of mathematical signs, scientific symbols, international characters, and lowercase and uppercase Greek letters.
- **Oversized** provides uppercase pi and gamma in two sizes (two and three lines high) and 11 mathematical characters in four sizes each (from two to five lines high).
- **Giant Oversized** offers the same 11 Oversized mathematical characters in one size (six lines high).

The charts at the end of this section show the characters included in the application character sets.

Which Application Character Sets are Installed?

This reference section describes the use of all the application character sets available for the 965 Printer. To determine which fonts are installed in your particular printer, run Diagnostic Test 08 (refer to "Running Diagnostic Tests" in Section 7A of this manual).

The printout of Test 08 lists all fonts installed in your printer, including the application character set fonts, which are not shown in the Font Selection Menu on your display.

The Current Application Character Set

The application character set you select in the First Line Formats Menu is the current set and is stored with the document. Characters typed from the current set are displayed on the screen. The default set is SCIENTIFIC1.

To change the default application character set permanently to another set, consult Section 8 in this manual on changing system defaults.

In any document, you can include characters from any of the application character sets. Only characters from the current set are displayed on the screen. A diamond or series of diamonds displayed on the screen show where characters from other sets will be printed. The exceptions to this rule are the international characters in the SCIENTIFIC2 character set, which you see on the screen even when they are not in the current set.

Changing the Application Character Set for an Entire Document

You can change the application character set for an entire document through the First Line Formats Menu. In that menu, use these abbreviations:

Application Character Set	Abbreviation
SCIENTIFIC1	S1
SCIENTIFIC2	S2
OVERSIZED or GIANT OVERSIZED	OS

Application characters are designed to match the Prestige Elite 12 font. Therefore, when you are typing text from these sets, make sure the current font and pitch are set for Prestige Elite 12. Refer to Section 7A for procedures on changing the font.

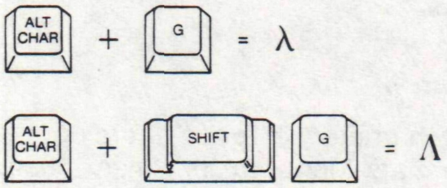
To Change the Current Application Character Set

Instructions:

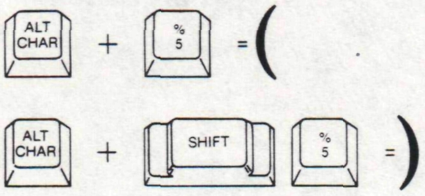
1. At the start of the document, press CODE + F7 (Status Menus) and then F7 (Document Status Menu) to display the First Line Formats Menu.
2. Move the cursor to Application Character Set.
3. Type the abbreviation for the new set.
4. ENTER
5. If necessary, change the pitch to 12 in the Variable Line Formats Menu.
6. RETURN to display the document.
7. If necessary, change the current font to Prestige Elite 12 in the Font Selection Menu.

To Type Characters from the Current Set

TYPING SCIENTIFIC CHARACTERS



TYPING OVERSIZED CHARACTERS



Instructions:

1. Refer to the keyboard chart at the end of this section to locate the required character. Identify the key to which the character has been assigned.

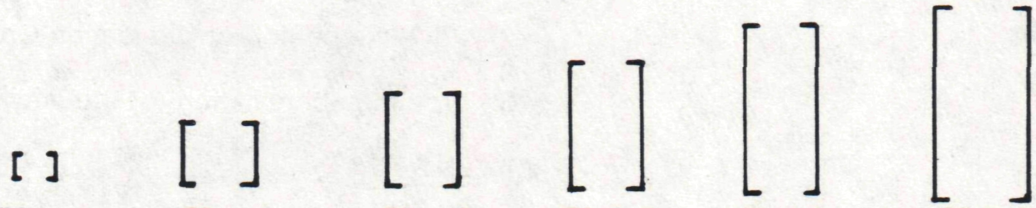
2. Press ALT CHAR and then the designated key. The required character is displayed on the screen.

Whenever you press ALT CHAR, the currently selected application character set is identified at the top of the screen and remains displayed until you have typed the character.

Because the system treats an application character as a format marker, press TRACE in the normal editing mode and place the cursor on the format marker to confirm the application character. The name of the character set is displayed on the status line, followed by the character you typed after pressing ALT CHAR. International characters in the SCIENTIFIC2 character set are not represented by format markers.

Special Considerations When Typing Oversized Characters

Below are the sizes of characters available from the OVERSIZED and GIANT OVERSIZED Application Character Sets. (Refer to the keyboard chart at the end of this section for the specific character/keyboard correspondence.) Size 1 is normal character size.



Size	Typing Lines	Point Size
1	1	10-12
2	2	24
3	3	36
4	4	48
5	5	60
6	6	72

- Unless the GIANT OVERSIZED font is installed, you cannot print oversized characters equal to one inch in size (Size 6). These characters can be displayed on the screen without the font installed. However, squares with wavy lines are printed instead of the Size 6 characters.
- Diamonds representing an oversized character can overwrite text on the screen if you do not allow enough space.
- The diamonds represent the size of the character. The amount of vertical space used by the diamonds is inversely proportional to the line spacing. The smaller the line spacing, the larger the representation of the oversized character on the screen.
- If one or more diamonds from an oversized character (not including the format marker) are deleted, the character will not be affected when it is printed.

Using Characters from Another Application Character Set

You can use another application character set while you are typing without changing the current set in the First Line Formats Menu.

Instructions:

1. Move the cursor to the point where you want to enter a character from another application character set.
2. Press F10 (Applications).
3. Press F7 (Alt Char Set). A prompt is displayed:

   Application Character Set:

4. Type the abbreviation of the alternate set.
5. ENTER. The name of the new set is displayed at the top of the screen.
6. Locate the character in the keyboard chart at the end of this section. Identify the key to which the character has been assigned.
7. Type the corresponding key. One or more diamonds appear on the screen indicating the size of the character. The character itself does not appear on the screen, although it will be printed.

Follow this procedure whenever you use a character from another application character set.

To identify the character set represented by the diamonds, press TRACE; a format marker is displayed on the screen. Place the cursor on the format marker; the name of the character set is displayed on the status line, followed by the character you typed. International characters in the SCIENTIFIC2 character set are not represented by format markers.

Constructing Large Characters

Several scientific characters can be overlapped vertically to create larger characters. Use this feature when you need to create large brackets, integral signs, braces and continuous vertical and horizontal bars for multilevel equations.

Instructions:

1. If the SCIENTIFIC1 character set is not selected, change the application character set to SCIENTIFIC1 and, if necessary, the font and pitch to Prestige Elite 12.
2. Display the Variable Line Formats Menu and set the line spacing to 0.5. If the line spacing is not set to 0.5, the constructed character will not be joined when it is printed.
3. Refer to the SCIENTIFIC1 character set keyboard chart to locate the required characters for the top, center and bottom portions of the larger character you want to construct.
4. Press ALT CHAR and the key for the top part of the character.
5. Place the cursor directly beneath that character, press ALT CHAR and type the center part of the character.
6. Repeat step 5 until you have constructed the central part of the character to achieve the correct height.
7. Place the cursor beneath the middle section, press ALT CHAR and type the bottom part of the character.

Deleting Application Characters

Because the system treats an application character as a format marker, an application character cannot be deleted by overtyping it with another character.

Instructions:

1. Place the cursor on the application character to be deleted. If the character is from the OVERSIZED or GIANT OVERSIZED character set, place the cursor on the format marker associated with the character.
2. Press DEL CHAR (CHAR OUT on some keyboards). The system enters Trace Mode and the format marker appears on the screen. The name of the specific application character set is displayed at the top of the screen.
3. Press DEL CHAR again to delete the character.
4. Press TRACE and the system leaves Trace Mode.

To delete an oversized character that is *not* from the current set (only the diamonds are displayed on the screen), press TRACE to enter Trace Mode. Place the cursor on the format marker associated with the oversized character and press DEL CHAR. While it is not necessary to delete the diamonds, you can delete them by pressing DEL CHAR, BACKSPACE or SPACEBAR.

Oversized characters, constructed characters and multiple application characters can be deleted through a block function called Frame Operations. Consult Section 18 of this manual for more information.

Searching for and Replacing Application Characters

In some instances you may want to search for and/or replace application characters. Refer to Section 4 in this manual for complete instructions on search and replace operations. The following chart lists the specific search and replace strings you should use for application characters.

Application Character Sets	Search/Replace String
SCIENTIFIC1	\R space + character Example: \R e
SCIENTIFIC2	\R″ + character Example: \R″t
OVERSIZED or GIANT OVERSIZED	\R! + character Example: \R!3

Special Considerations for Application Characters

1. The diamonds representing an oversized character are not replaced or deleted during a replace operation.
2. Search and replace does not work with the international characters (non-format block characters) found in the SCIENTIFIC2 character set. Delete and replace international characters using normal editing techniques.

Typing Accents and Accented Characters

The SCIENTIFIC2 character set contains the most commonly used accented characters. However, you may have applications for which you want to use the accents available in the SCIENTIFIC1 character set to produce accents alone or over other characters.

To Type Accents Alone or in a Series

Instructions:

1. Select the accent mark from the SCIENTIFIC1 chart for your keyboard at the end of this section, and identify the key to which the accent has been assigned.
2. Type the accent mark, then a space. If a RETURN is to follow the accent, include a space between the accent and the RETURN.

To Print	Type
∧	∧space
∧ ∧ ∧RETURN	∧space space∧space RETURN

To Type Accented Characters

Instructions:

1. Select the accent mark from the SCIENTIFIC1 chart for your keyboard at the end of this section, and identify the key to which the accent has been assigned.
2. Type the accent mark, then the character to be accented.

To Print	Type
â	∧a

NOTE: For specific instructions on typing application characters, refer to "To Type Characters from the Current Set" in this section.

Typing Multilevel Equations

To type multilevel equations, set the line spacing to 0.5 and use the UP and DOWN ARROW keys to move from one level of an equation to another. Instead of superscript and subscript functions, use the ARROW keys to place exponents or use the superscripted numbers found in the SCIENTIFIC2 character set.

Instructions:

1. Enter text to the point where you want to type the multilevel equation.
2. RETURN
3. Display the Variable Line Formats Menu and set the line spacing to 0.5.
4. RETURN to display the document.
5. Enter as many RETURNs as necessary to allow the cursor to move vertically for the equation. The rule of thumb is one RETURN for each level in the equation.
6. Type the equation using the UP and DOWN ARROW keys to reach each level in the equation.
7. After typing the equation, use the Block Protect operation to protect your equation during pagination (refer to Section 4 in this manual for procedures).
8. Display the Variable Line Formats Menu, and set the line spacing back to its original setting. RETURN to redisplay the document. Continue typing.

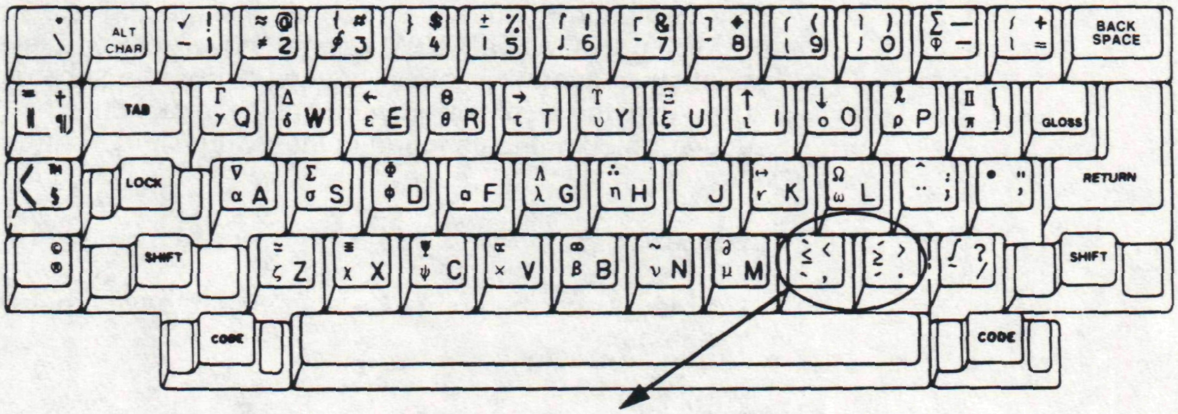
The text is displayed on the screen in single-line spacing, but will be printed in half-line spacing.

When creating a horizontal line that will be used as a fraction bar, use the horizontal bar from the SCIENTIFIC1 character set rather than the underscore key.

If you want to check that the multilevel equation will print correctly, use Block Print. Consult Section 7A in this manual.

Scientific1 Character Set

Low Profile Keyboard


ALT CHAR
BACK SPACE
TAB
GLOSS
LOCK
RETURN
SHIFT
SHIFT
CODE
CODE

Legend — Uppercase

`	´	≤	≥
,	.	<	>

` = SHIFT LOCK + ALT CHAR + ,
´ = SHIFT LOCK + ALT CHAR + .
≤ = SHIFT + ALT CHAR + <
≥ = SHIFT + ALT CHAR + >

Uppercase Characters

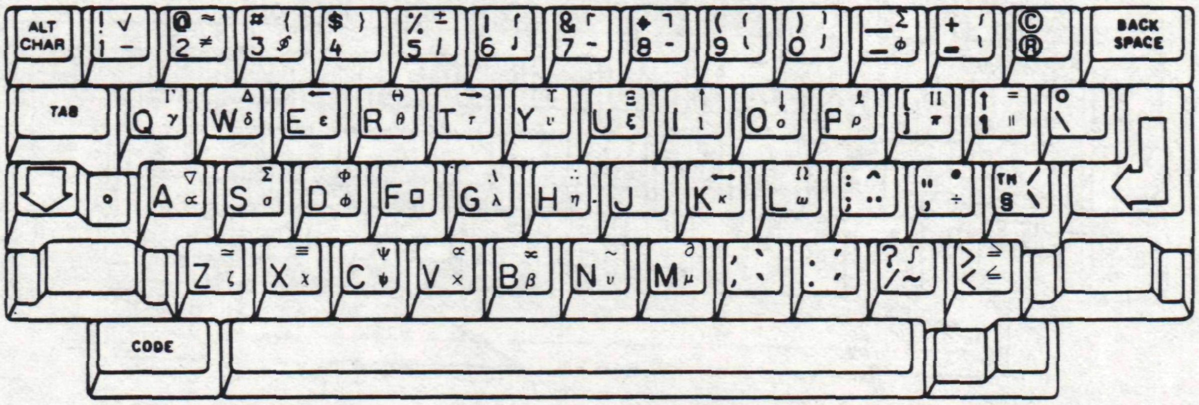
∇	∞	Ψ	Φ	←		Λ	∴	↑		↔	Ω	∂
A	B	C	D	E	F	G	H	I	J	K	L	M
~	↓	ℓ	Γ	Θ	Σ	→	Ξ	∝	Δ	≡	T	≃
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
√	≈	{	}	±	⎧	⌈	⌉	⎛	⎞	∑	⌠	
!	@	#	$	%	|	&	*	(	)	_	+	©
Ⅱ	=		ˆ	·	/	`	´	≤	≥	∫		
[	†	°	:	"	™	,	.	<	>	?		

Lowercase Characters

α	β	ψ	φ	ε	▫	λ	η	ι		κ	ω	μ
a	b	c	d	e	f	g	h	i	j	k	l	m
ν	ο	ρ	γ	θ	σ	τ	ξ	×	δ	χ	υ	ζ
n	o	p	q	r	s	t	u	v	w	x	y	z
−	≠	∮		⎪	⌡	‾	‾	⎝	⎠	Φ	⎩	
1	2	3	4	5	6	7	8	9	0	-	=	®
π	‖		¨	÷	∖	`	´	˜				
]	¶	\	;	'	§	,	.	/				

Scientific1 Character Set

High Profile Keyboard


ALT CHAR
BACK SPACE
TAB
CODE

Uppercase Characters

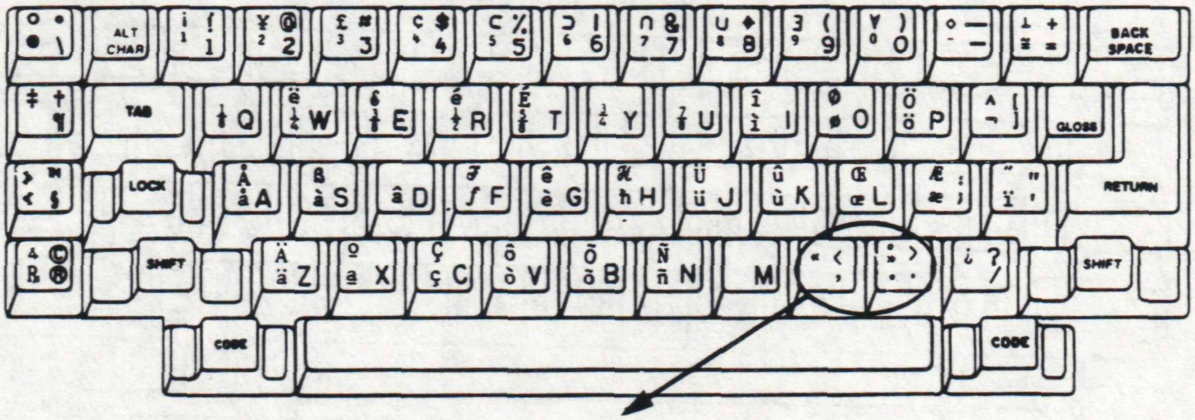
∇	∞	Ψ	Φ	←		Λ	∴	↑		↔	Ω	∂
A	B	C	D	E	F	G	H	I	J	K	L	M
~	↓	ℓ	Γ	θ	Σ	→	Ξ	∝	Δ	≡	Υ	≃
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
√	≈	{	}	±	⌠	⌈	⌉	⎛	⎞	∑	⌡	
!	@	#	$	%	|	&	*	(	)	_	+	©
Π	═		^	·	/	`	´	∫	≥			
[	†	°	:	"	™	,	.	?	>			

Lowercase Characters

α	β	ψ	φ	ε	□	λ	η	ι		κ	ω	μ
a	b	c	d	e	f	g	h	i	j	k	l	m
ν	ο	ρ	γ	θ	σ	τ	ξ	×	δ	χ	υ	ζ
n	o	p	q	r	s	t	u	v	w	x	y	z
—	≠	∮		⎮	⌡	‾	‾	⎝	⎠	Φ	⎩	
1	2	3	4	5	6	7	8	9	0	-	=	®
π	‖		¨	÷	\	`	´	˜	≤			
]	¶	\	;	'	§	,	.	/	<			

Scientific2 Character Set

Low Profile Keyboard


ALT CHAR
BACK SPACE
TAB
GLOSS
LOCK
RETURN
SHIFT
SHIFT
CODE
CODE

Legend — Uppercase

	·	≪	≫
,	.	<	>

· = SHIFT LOCK + ALT CHAR + ·

≪ = SHIFT + ALT CHAR + <

≫ = SHIFT + ALT CHAR + >

Uppercase Characters

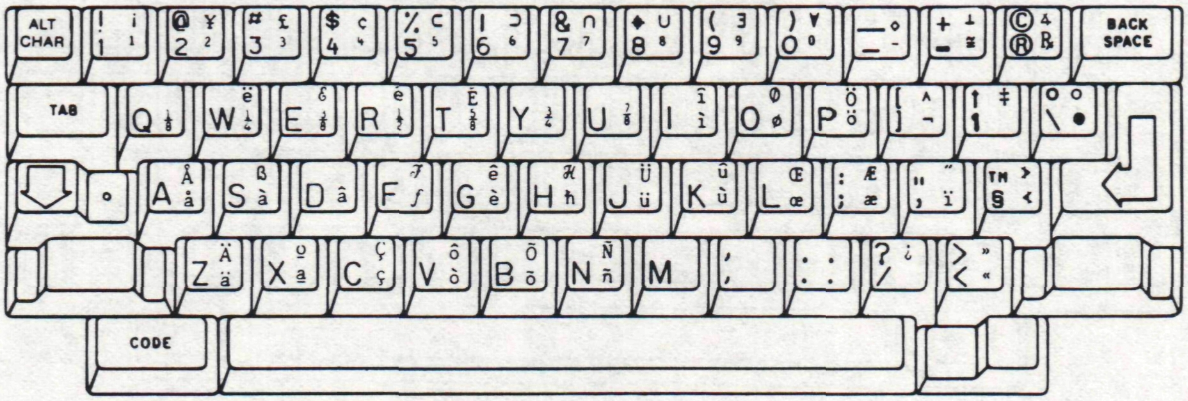
Å	Õ	Ç		ȣ	ℱ	ê	ℋ	î	Ü	û	Œ	
A	B	C	D	E	F	G	H	I	J	K	L	M
Ñ	Ø	Ö		é	ß	É		ô	ë	º		Ä
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
¡	¥	£	ç	⊂	⊃	∩	∪	∃	∀	◇	⊥	4
!	@	#	$	%	|	&	*	(	)	_	+	©
∧	‡	○	Æ	″	≻		˙	«	»	¿		
[	†	°	:	"	™	,	.	<	>	?		

Lowercase Characters

å	õ	ç	â	⅜	ʃ	è	ħ	ì	ü	ù	œ	
a	b	c	d	e	f	g	h	i	j	k	l	m
ñ	ø	ö	⅛	½	à	⅝	⅞	ò	¼	ª	¾	ä
n	o	p	q	r	s	t	u	v	w	x	y	z
1	2	3	4	5	6	7	8	9	0	-	≅	℞
1	2	3	4	5	6	7	8	9	0	-	=	®
¬		●	æ	ï	≺		˙					
]	¶	\	;	'	§	,	.	/	·			

Scientific2 Character Set

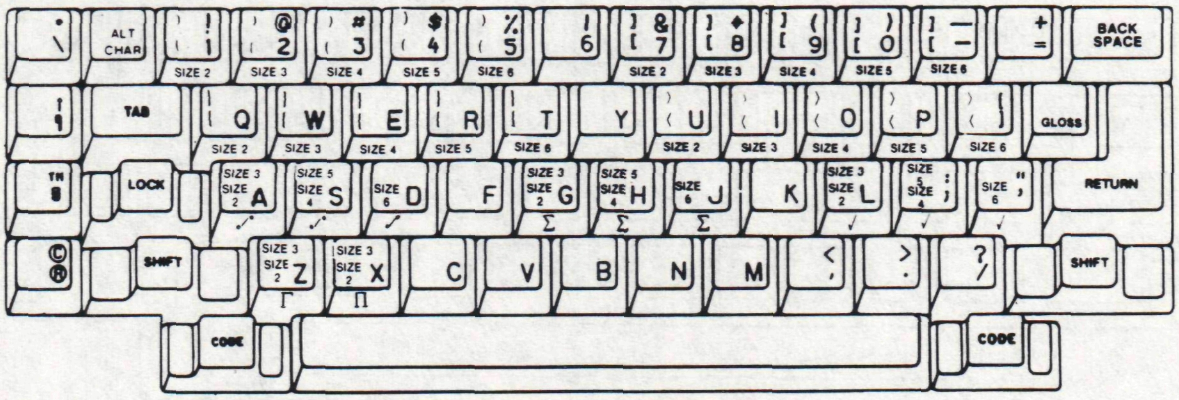
High Profile Keyboard


ALT CHAR
BACK SPACE
TAB
CODE

Uppercase Characters	Lowercase Characters
Å Õ Ç ℰ ℱ ê ℋ î Ü û Œ	å õ ç â ⅜ ʃ è ħ ì ü ù œ
A B C D E F G H I J K L M	a b c d e f g h i j k l m
Ñ Ø Ö é ß É ô ë º Ä	ñ ø ö ⅛ ½ à ⅝ ⅞ ò ¼ ª ¾ ä
N O P Q R S T U V W X Y Z	n o p q r s t u v w x y z
¡ ¥ £ ç ⊂ ⊃ ∩ ∪ ∃ ∀ ◇ ⊥ ♃	1 2 3 4 5 6 7 8 9 0 - ≅ ℞
! @ # $ % | & * ( ) _ + ©	1 2 3 4 5 6 7 8 9 0 - = ®
∧ ‡ ○ Æ ″ > ˙ ¿ »	¬ ● æ ï < ˙ «
[† ° : " ™ , . ? >	] ¶ \ ; ' § , . / <

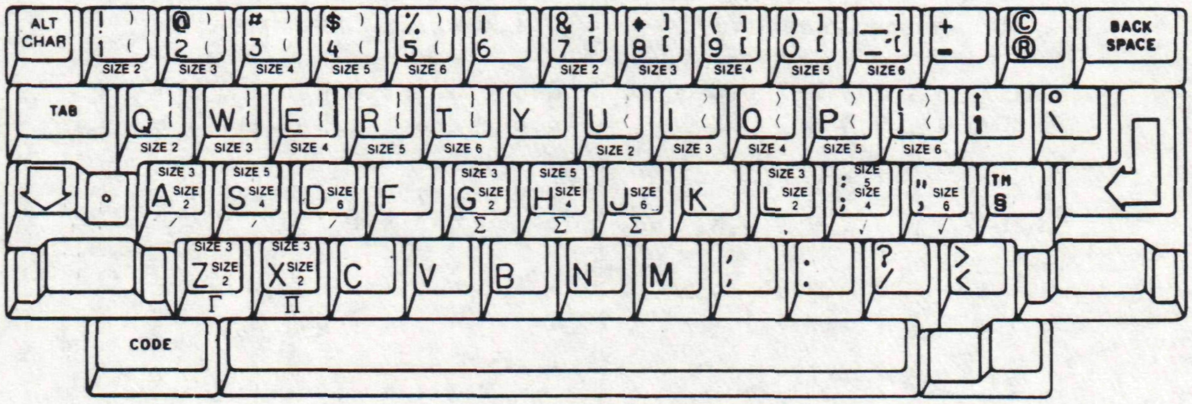
Oversized Character Set Keyboard

Low Profile Keyboard

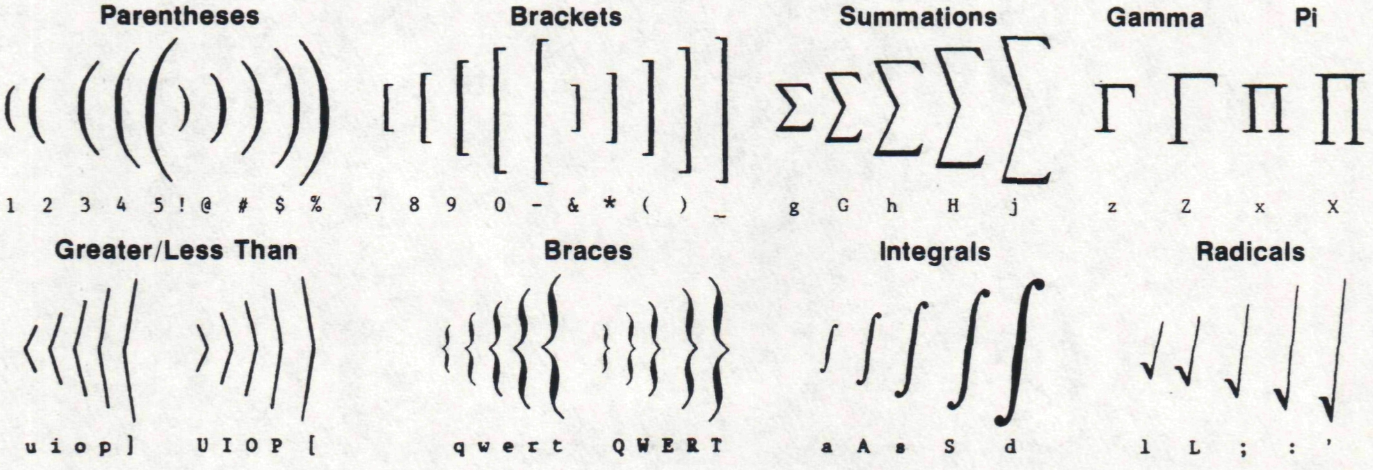

ALT CHAR
SIZE 2
SIZE 3
SIZE 4
SIZE 5
SIZE 6
BACK SPACE
TAB
Q W E R T Y U I O P
GLOSS
LOCK
A S D F G H J K L
RETURN
SHIFT
Z X C V B N M
CODE

Oversized Character Set Keyboard

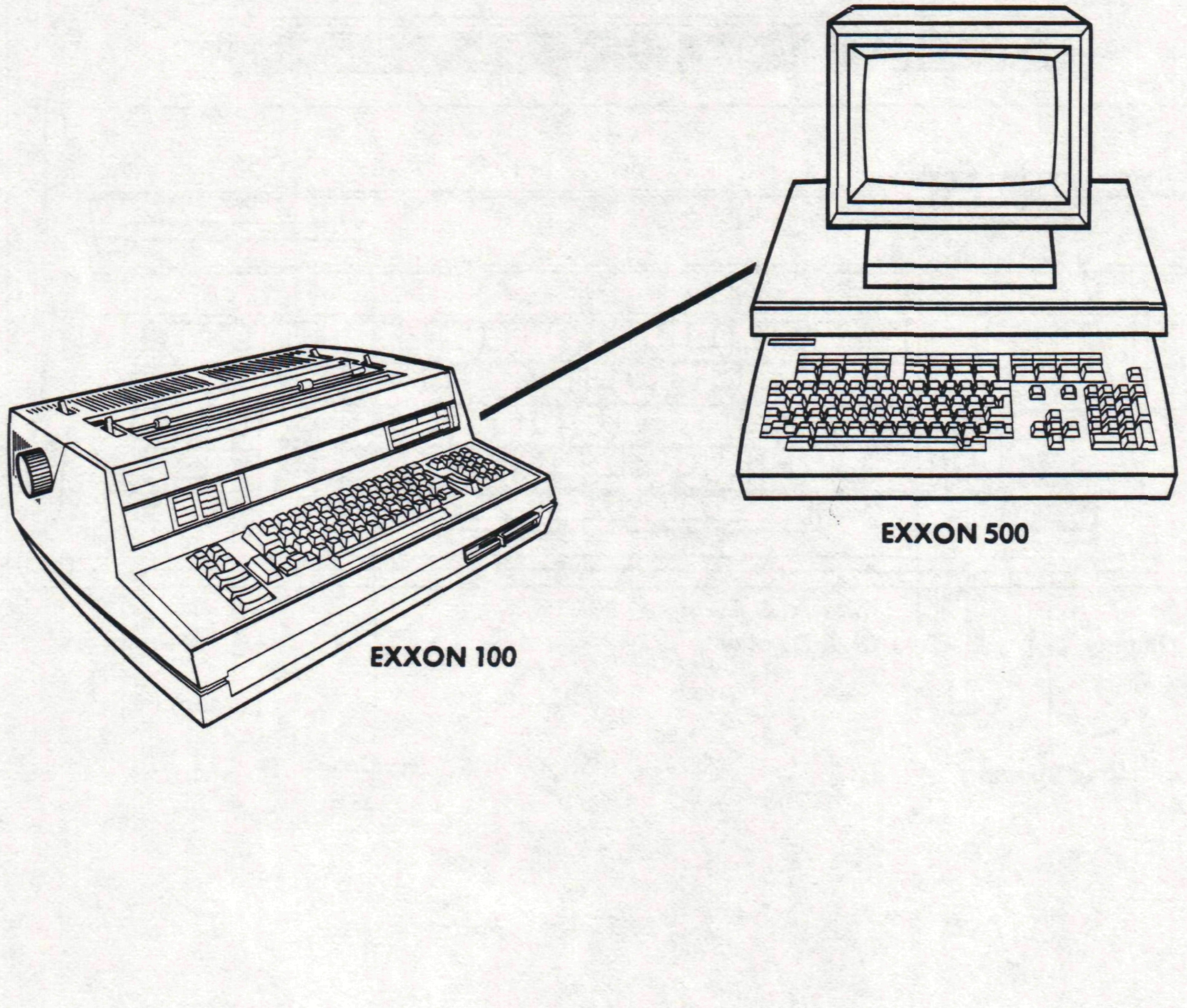
High Profile Keyboard


ALT CHAR
SIZE 2
SIZE 3
SIZE 4
SIZE 5
SIZE 6
BACK SPACE
TAB
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
CODE

High and Low Profile Keyboards

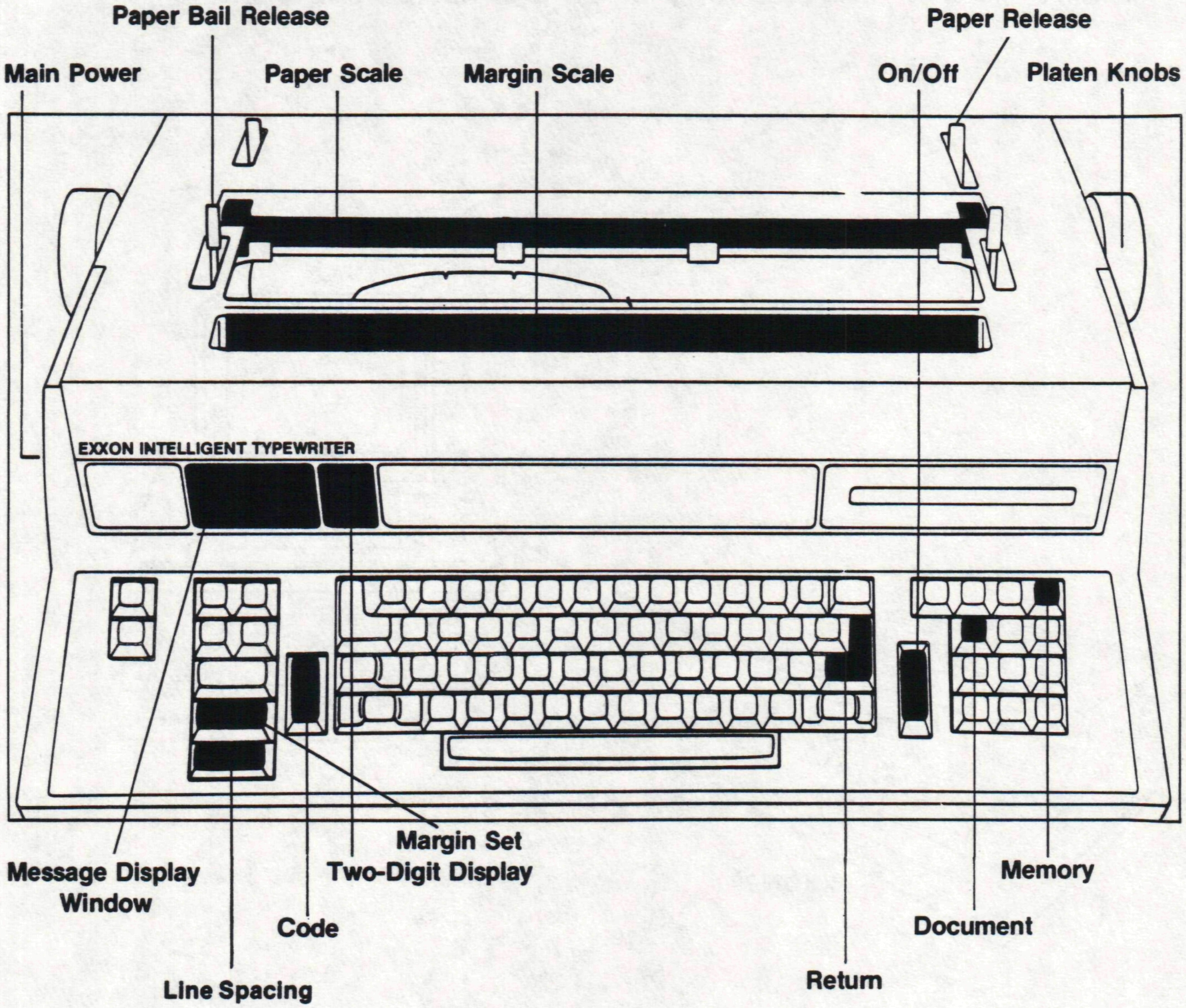

Parentheses
1 2 3 4 5 ! @ # $ %
Brackets
7 8 9 0 - & * ( ) _
Summations
g G h H j
Gamma
Pi
z Z x X
Greater/Less Than
u i o p] U I O P [
Braces
q w e r t Q W E R T
Integrals
a A s S d
Radicals
l L ; : '

EXXON 500 Printer Option for the EXXON 100 Series


EXXON 500
EXXON 100

Part No. 5061-0028 Reorder No. S0142

EXXON 100 Series (E100)


Paper Bail Release
Paper Release
Main Power
Paper Scale
Margin Scale
On/Off
Platen Knobs
EXXON INTELLIGENT TYPEWRITER
Margin Set
Message Display Window
Two-Digit Display
Memory
Code
Document
Return
Line Spacing

OPTIONS
EXXON 500 Printer Option for the EXXON 100 Series

The EXXON 100 Series Electronic Typewriter (E100) can be used as an optional printer for the EXXON 500 Series. When connected to the 500 Series it becomes a high quality printer which will receive and print documents sent to it by the 500 Series. The E100 can also be used as a standalone electronic typewriter providing you with an additional text editing station when not being used as a printer for the 500 Series.

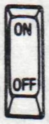
This section explains how the E100 can be used as a printer for the EXXON 500 Series. Any information regarding the E100 as an electronic typewriter or standalone station can be found in the E100 Personalized Instruction Booklets and Reference Card Guide. For additional information regarding EXXON 500 Series printing and use of system features that affect printing, see Section 7 "Printing" in the EXXON 500 Series Operator's Reference Manual.

Preparing the E100 for Printing

Before you can use the E100 as an optional printer it is necessary to clear its working memory in standalone mode, and place the E100 into PRINT MODE.

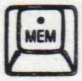
Start-Up Procedures

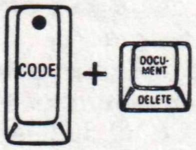
Instructions:

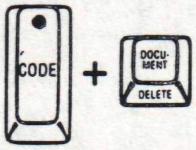


1. Press the ON side of the ON/OFF switch located to the right of the keyboard on the E100.

   Note: Steps 2 and 3 apply only to E100's having a gray MEMORY (MEM) key.

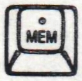




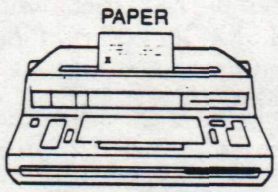


2. Any text that is in working memory must be cleared before you can enter PRINT MODE. The two-digit display should be blank, which means working memory is clear. There are two ways of clearing working memory. You can permanently delete the text that is in memory or you can file (store) it for later use. If there is something in the two-digit display, press the gray MEMORY (MEM) key until the light goes **on** and press CODE + DOCUMENT, then CODE + DOCUMENT again to clear working memory. Remember, this will permanently delete any text that is in working memory. If you wish to save the text for later use, see "FILING" in your E100 Reference Card Guide.

   Note: Phrase memory can be full and does not need to be cleared.



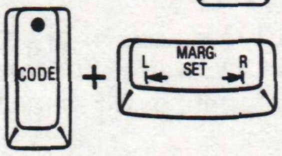
3. Turn memory off by pressing the gray MEMORY (MEM) key until the light goes **off**.

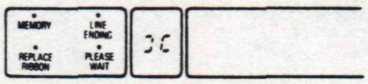


Paper Insertion

1. Pull the Paper Bail Release forward so the paper bail is away from the platen.
2. Place the paper behind the platen. Align left edge of the paper with the 0 on the margin scale.

   Note: The metal paper guide can be moved over to align with the left margin edge on the margin scale. This guide allows you to insert the paper evenly.
3. Roll the paper in using the Platen Knobs.
4. Push the Paper Bail Release back so the paper bail is now resting on top of the sheet of paper. If the paper is not inserted far enough into the printer to reach the paper bail, keep it pulled forward until printing begins. This will help to avoid a paper jam until the paper advances.



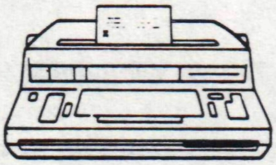


Accessing Print Mode on the E100

1. Press the RETURN key on the E100 to clear the buffer memory.
2. Press the CODE key on the E100 and its red light will go on.
3. Press the L side of the MARGIN SET key. PRINT MODE is activated when the two-digit display is set to] [.

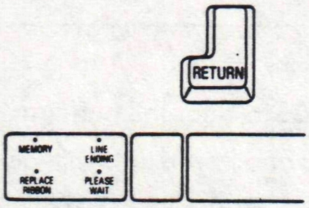
   Note: Normal E100 standalone operations and functions **cannot** be used while the E100 is in PRINT MODE and functioning as a printer for the 500 Series.

Printing Documents



1. Once PRINT MODE is entered on the E100, documents can be sent from the 500 using standard EXXON 500 printing procedures and the appropriate print command keys on the 500.
2. A printwheel value of 0126 should be entered in the Printer Status Menu before the print command is given on the EXXON 500.
3. Any EXXON 500 print option can be chosen, including print screen, print from index, print block, print merge, print index and direct type. For information regarding printing from the EXXON 500, turn to Section 7 "Printing" in the EXXON 500 Series Operator's Reference Manual.

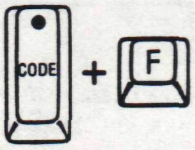
Canceling Print Mode on the E100



1. Press the RETURN key on the E100 to cancel PRINT MODE. The two-digit display will clear.
2. Once PRINT MODE is canceled, the unit can be used independently as a standalone E100.

Note: If the RETURN key on the E100 is pressed at any time during a print operation, PRINT MODE will be canceled, the two-digit display will be blank, and printing will stop. Use the following procedure to resume printing.

1. Press STOP PRINT on the 500 keyboard.
2. Insert paper into the E100.
3. Press CODE + LEFT MARGIN to regain access to PRINT MODE.
4. Resend the document to the E100 starting from the page that next needs to be printed. (See "Printing a Section of a Document" in Section 7 of the 500 Series Operator's Reference Manual.)



Forms Feed

Press CODE + F on the E100 to advance continous form paper or to eject paper automatically from the platen.

Printwheels and Character Set Compatibility

1. All of the characters that you see on the 500 keyboard will print with the exception of six characters. The following chart describes the six unprintable characters and explains what will print in their place.

Character	**Prints**
> more than	blank space
< less than	blank space
© copyright	blank space
™ trademark	blank space
\ backslash	═ double underscore
° degree	● bullet

Note: The "greater than" symbol will print as a blank space when using CP/M and the backslash symbol will print as a double underscore in Line Drawing Mode.

2. The default value of 0126 should be used in the printwheel selection of the Printer Status Menu whenever documents will be printed on the E100. Any other number placed in the printwheel selection will cause text to print incorrectly.

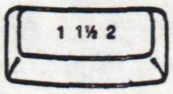
3. A variety of typestyles for the E100 are available in 10 pitch, 12 pitch and proportional spacing. Special or foreign printwheels should not be used because incorrect or blotched characters will appear.

4. Refer to "Printwheel" in the E100 Reference Card Guide regarding instructions for changing printwheels.

Line Spacing

Line spacing is controlled through the Document Status Variable Line Format Menu on your EXXON 500. However, the E100 will control line spacing when printing the following applications:

a. printing a disk Index
b. printing a sort information menu
c. printing under CP/M



Before printing any of the above applications, set the LINE SPACING key on the E100, located on the lower left corner of the keyboard, to the appropriate setting (1, 1½ or 2).

Ribbon Replacement

1. Refer to "Ribbon" in the E100 Reference Card Guide regarding instructions for changing ribbons.
2. If the ribbon runs out during printing, the Replace Ribbon light will go on and printing will stop. Lift cover, replace ribbon, close cover, and printing will resume where it left off.

Troubleshooting

PROBLEM	**CAUSE**	**SOLUTION**
After selecting a print function, nothing happens and text is not printing.	PRINT MODE has not been accessed.	Press STOP PRINT on 500, regain access to PRINT MODE (two-digit display should be set to] [) and resend text.
After selecting a print function, the carriage goes back and forth, but characters are not printing.	The "NO PRINT" command was not turned off in STANDALONE MODE before accessing PRINT MODE.	Press RETURN to cancel PRINT MODE Press CODE + 0. Regain access to PRINT MODE.
After selecting a print function, the carriage appears to be printing, but characters do not appear on the paper.	The "STENCIL" command was not turned off in STANDALONE MODE before accessing PRINT MODE.	Press RETURN to cancel PRINT MODE. Press CODE + AS. Regain access to PRINT MODE.
****TEXT LOST**** prints on paper and printing stops.	— —	Press STOP PRINT on 500. Insert paper, regain access to PRINT MODE and resend text.
Text is printing with a space between each character.	The print command on the 500 was given before the E100 was placed into PRINT MODE.	Press STOP PRINT on the 500. Press RETURN on the E100. Regain access to PRINT MODE and resend text.
<, >, °, ©, ™, \\, will not print.	— —	These characters cannot be accessed.

PROBLEM	CAUSE	SOLUTION
Wrong characters print and/or blotched characters appear.	A number other than 0126 was placed in the printwheel selection on the Printer Status Menu.	Enter 0126 in the printwheel selection on the Printer Status Menu.
Printing stops and two-digit display goes blank.	Printer reverted into STANDALONE MODE.	Press STOP PRINT on 500. Insert paper, regain access to PRINT MODE and resend text.

EXXON OFFICE SYSTEMS

500 Series Information Processor

Operator's Reference Manual
Hard Disk Unit

Please insert these pages behind the Option's tab in your Exxon 500 Operator's Reference Manual.

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EXXON 500 SERIES
HARD DISK OPTION

The Hard Disk Unit is an option available on the EXXON 500 Series Information Processor which provides you with greater disk storage capacity and reduces the time it normally takes to perform disk operations.

This manual shows you all of the Hard Disk Unit configurations and how to designate the disk drives on your system. It also explains procedures for hard disk initialization, backup, and restore. All other Word Processing operations are performed exactly as they are performed on the 500 Series without the hard disk option, with a few exceptions listed in this manual. Instructions on how to perform these Word Processing operations are found in the EXXON 500 Series Reference Manual.

Disk Drives

1. **Hard Disk Drive**

   The Hard Disk Drive holds the 5, 10 or 15 megabyte hard disk which provides you with additional disk storage capacity. Since the hard disk cannot be accessed and remains in the drive at all times, the drive is covered by a black face plate.

2. **Internal Floppy Disk Drive** (When Present)

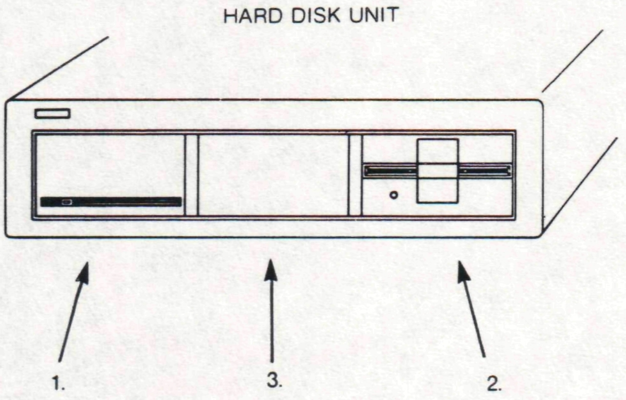
   The floppy disk drive holds the mini-floppy disks in place. The drive has a small door which, when closed, secures the disk in the drive. The floppy disks are inserted horizontally. If the unit does not contain a floppy disk drive, a panel will cover the opening.

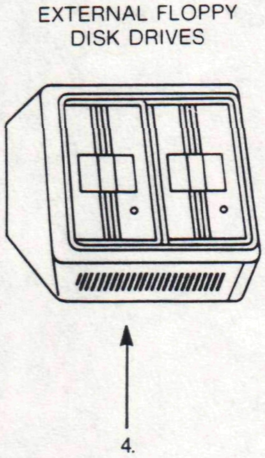
3. **The Center Drive**

   The center drive can hold either a hard disk or a floppy disk. If it is not being used to hold either, a panel will cover the opening.

4. **External Floppy Disk Drive(s)** (When Present)

   The external floppy disk drive serves the same purpose as the internal floppy disk drive described above. The only difference is that the disks are inserted vertically rather than horizontally.



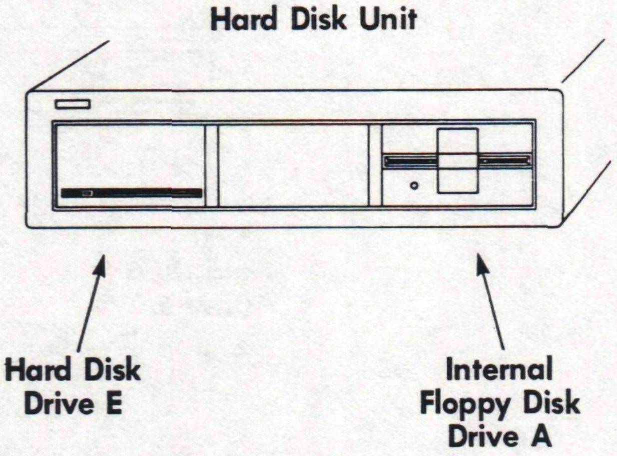


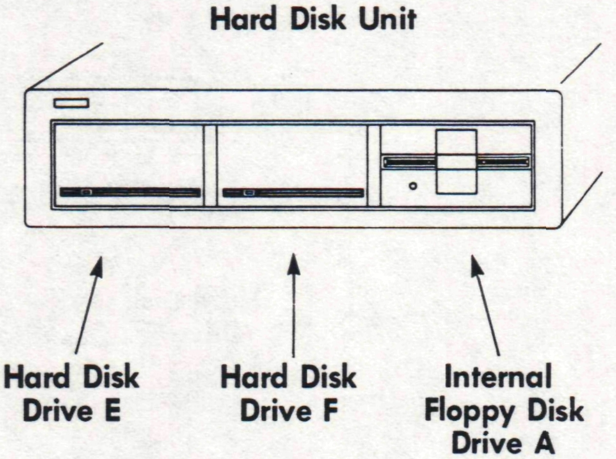
Disk Drive Designation

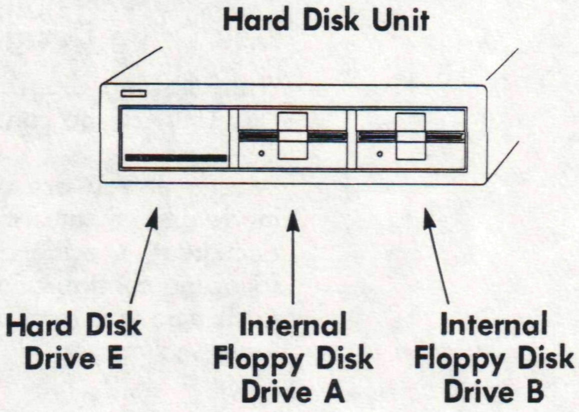
The following diagrams show the seven different ways the Hard Disk Unit can be configured.

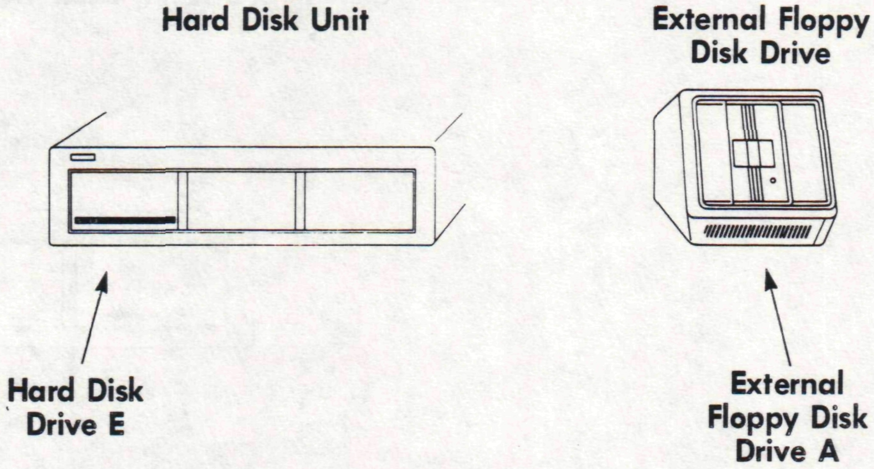
Whenever you are using the Hard Disk Unit in Word Processing mode and you must designate on which disk you want to store your document, specific drive designations must be used. From the following configurations, choose the one that matches your system. Each time you must designate a certain disk drive, type the drive letter shown:

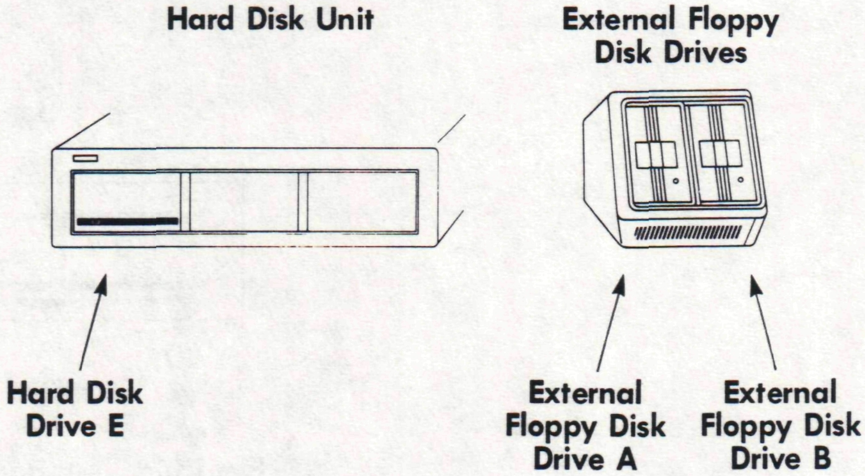
Configurations/Disk Drive Designations

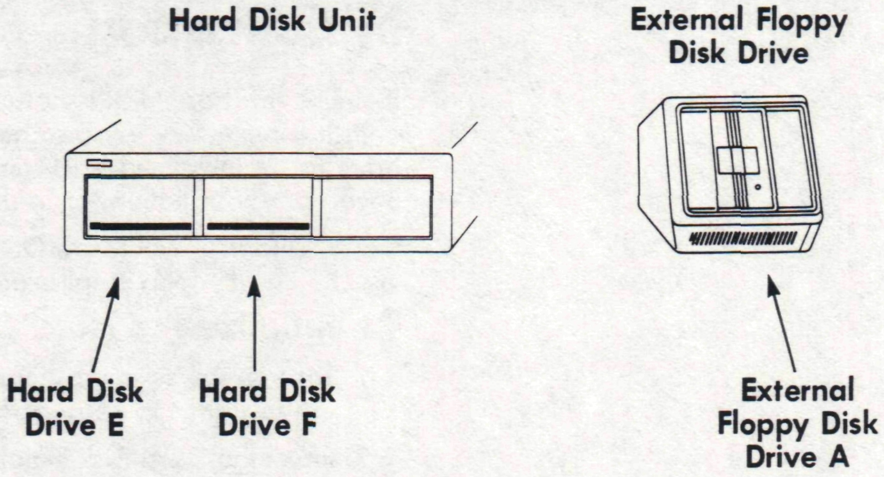

Hard Disk Unit
Hard Disk
Drive E
Internal
Floppy Disk
Drive A

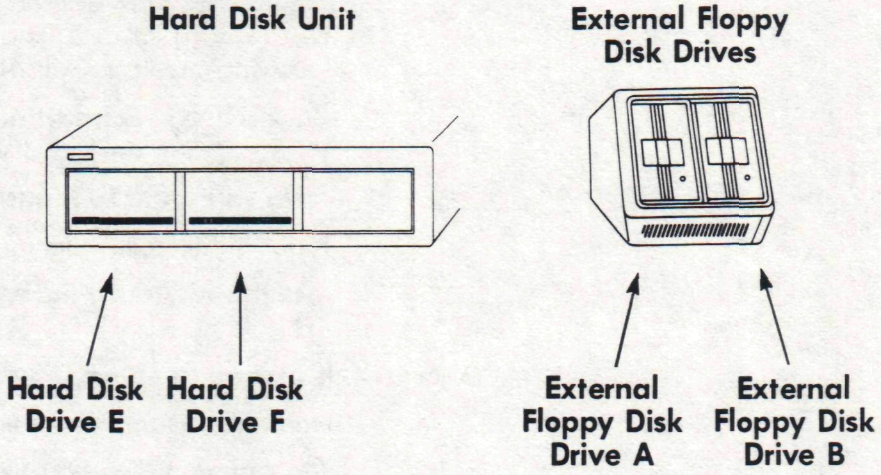

Hard Disk Unit
Hard Disk
Drive E
Hard Disk
Drive F
Internal
Floppy Disk
Drive A


Hard Disk Unit
Hard Disk Drive E
Internal Floppy Disk Drive A
Internal Floppy Disk Drive B


Hard Disk Unit
External Floppy Disk Drive
Hard Disk Drive E
External Floppy Disk Drive A


Hard Disk Unit
External Floppy Disk Drives
Hard Disk Drive E
External Floppy Disk Drive A
External Floppy Disk Drive B


Hard Disk Unit
External Floppy Disk Drive
Hard Disk Drive E
Hard Disk Drive F
External Floppy Disk Drive A


Hard Disk Unit
External Floppy Disk Drives
Hard Disk Drive E
Hard Disk Drive F
External Floppy Disk Drive A
External Floppy Disk Drive B

Initialization

Because the hard disk is not initialized when you first receive the unit, it is necessary to do so before usage. The hard disk does not have to be initialized each time you want to use the unit — only *once* upon installation, or in the event of a power failure.

> Note: If your EXXON engineer initializes the hard disk upon installation, it does not have to be done again.

To Initialize the Hard Disk:

1. Turn on the system by firmly pressing down the switch located in the right top corner on the back of the Hard Disk Unit.
2. Insert the Hard Disk Initialization Disk into floppy disk Drive A. (The first time the hard disk is initialized, wait until the red lights on the front of the disk panels stop flashing before the Initialization Disk is inserted into the floppy drive.) See page 13, "How To Insert A Floppy Disk," if you need assistance. The following message will appear on the screen:

   WARNING: Formatting the disk will erase all data stored on the disk.

   Do you want to format Drive E (left disk)? [Type Y or N]

3. Type: Y The following message will appear on the screen:

   Is the red lamp lighted on the correct drive? [Type Y or N]

4. If the red lamp on Drive E is lit, type: Y

   Note: If the lamp is not lit, or if the wrong lamp is lit, type: N

   The question "Do you want to format Drive E" will appear again.

   If you answer yes, the following message will appear:

   Please type the size designation characters of the drive you are formatting:

5. Type the characters that appear on the label located on the back panel of the unit behind hard disk Drive E. (The first character should be a W with the numbers 05, 10 or 15 following it.) Press RETURN.
6. The following message will appear on the screen:

   The Hard Disk is being formatted.

   The formatting operation will take between two and six minutes. A time clock will be displayed on the screen.

7. At the end of the formatting operation, the following message will appear:

   Formatting is complete.

   The system will now automatically copy the Back-up and Restore functions onto the hard disk. When the copy process has been completed, the following message will appear:

   Please remove HDU INITIALIZER diskette and insert Word Processing System diskette.

   Press RETURN to continue.

8. Remove the HDU Initializer disk from the floppy disk drive and insert the Word Processing disk. Press RETURN. The following message will appear on the screen:

   Copy in progress.

   The copy process will take approximately two minutes. At the completion of the copy process, the following message will appear on the screen:

   Copy complete.

   Please remove the Word Processing System diskette from the drive.

   Press RETURN to continue.

9. Remove the Word Processing disk from the floppy disk drive. Press RETURN. The following message will appear:

   Do you want to copy additional applications to Drive E? Type [Y or N]

10. If you have applications disks such as Communications that you would like copied onto the hard disk, type: Y

    If you do not have additional applications disks that you would like copied, type: N and go on to step number 14.

11. If you answer yes, the following messages will appear on the screen:

    Please insert the applications diskette to be copied.

    Press RETURN to continue.

12. Insert the applications floppy disk to be copied into floppy disk Drive A. Press RETURN. The following message will appear on the screen:

    Copy in progress.

The amount of time it takes to copy the disk will vary depending on the specific disk. At the end of the copy process, the following message will appear:

Copy complete.

Do you wish to copy additional applications? [Type Y or N]

13. If you want to copy another applications disk, type: Y and complete step 12 for each applications disk to be copied. If you do not have another applications disk to copy, type: N.
14. The following message will appear on the screen:

WARNING: Formatting the disk will erase all data stored on the disk.

Do you want to format Drive F (right disk)? [Type Y or N]

If your unit contains one hard disk, type: N and go on to step 18. If your unit contains two hard disks, type: Y The following question will appear:

Is the red lamp lighted on the correct drive? [Type Y or N]

15. If the red lamp on Drive F is lit, type: Y.

Note: If the lamp is not lit, or if the wrong lamp is lit, type: N. The question "Do you want to format Drive F" will appear again.

If you answer yes, the following message will appear:

Please type the size designation characters of the drive you are formatting:

16. Type the characters that appear on the label located on the back panel of the unit behind hard disk Drive F (The first character should be a W with the numbers 05, 10 or 15 following it.) Press RETURN.
17. The following message will appear on the screen:

The Hard Disk is being formatted.

The formatting operation will take between two and six minutes. A time clock will be displayed on the screen.

18. At the end of the formatting operation, the following message will appear:

    The preparation of the Hard Disk(s) is now completed.

    Press RETURN to continue.

    Remove the disk from the floppy disk drive and press RETURN. The system will now load the Word Processing software from the hard disk. When the loading is completed a message will appear asking you to enter the time and the date.

19. Type the hour, then a slash, then the minutes, followed by AM or PM (9/45 AM). Press ENTER. Type the month, day and year, separated by slashes (4/18/83). Press ENTER. The following message will appear:

    Disk cannot be read. Press RETURN to continue.

20. Press RETURN. The following message will appear:

    Type letter of drive. Press ENTER.

21. Type the letter E and press ENTER.

22. In order to eliminate the "Disk cannot be read" message from appearing each time you turn on your system, the default drive must be changed to Drive E:

    Press CODE + F12 (Utilities).

23. Press F11 (Set Defaults). The following prompt will appear:

    Current default settings are now standard.
    Press RETURN to continue.

24. Press RETURN. The following prompt will appear:

    Press RETURN to continue.

25. Press RETURN.

26. The Back-up function has been copied to the hard disk during initialization; however, you must create a document named Back-up. (This function is covered in detail on the following pages.)

    On a clear screen, type the word BACKUP. Press the STORE key. A prompt will appear asking you to name the document. Type the following: E:BACKUP (this tells the system to store the document on the disk in Drive E, and name it BACKUP (procedures for storing a document can be found in your 500 Series Reference Manual). Press ENTER.

27. Following step 26, create a document for all applications disks that you copied earlier (if any).

    The initialization procedure has now been completed and your terminal is in Word Processing mode. If it is not in Word Processing mode, turn off the Hard Disk Unit (power down) and turn it back on again (power up).

Adding a Second Hard Disk

When a second hard disk is added to the Hard Disk Unit after the first hard disk has been initialized, the second hard disk must also be initialized before use.

To Initialize a Second Hard Disk After Initialization of the First Hard Disk Has Been Completed:

1. Turn the system off.
2. Turn the system back on.
3. Insert the Hard Disk Initialization disk into floppy disk Drive A. The following message will appear on the screen:

   Do you want to format Drive E (left disk)? [Type Y or N]

4. Type: N The following message will appear on the screen:

   Do you want to copy additional applications to Drive E? Type [Y or N]

5. Type: N The following message will appear:

   Do you want to format Drive F (right disk)? [Type Y or N]

6. Type: Y The following question will appear:

   Is the red lamp lighted on the correct drive? [Type Y or N]

7. If the red lamp on Drive F is lit, type: Y.

   Note: If the lamp is not lit, or if the wrong lamp is lit, type: N. The question "Do you want to format Drive F" will appear again.

   If you answered yes, the following message will appear:

   Please type the size designation characters of the drive you are formatting:

8. Type the characters that appear on the label located on the back panel of the Hard Disk Unit directly in back of the F drive. (The first character should be a W with the numbers 05, 10 or 15 following it.) Press RETURN.

9. The following message will appear on the screen:

   The Hard Disk is being formatted.

   The formatting operation will take approximately two to six minutes. A time clock will be displayed on the screen.

10. At the end of the formatting operation, the following message will appear:

    The preparation of the Hard Disk(s) is now completed.

    Press RETURN to continue.

11. Remove the disk from the floppy disk drive and press RETURN. The system will now load the Word Processing software from the hard disk. When the loading is completed a message will appear asking you to enter the time and the date.

12. Type the hour, a slash and the minutes, followed by AM or PM (9/45/AM). Press ENTER. Type the month, day and year separated by slashes (4/18/83). Press ENTER.

Your terminal is now in Word Processing mode.

Adding Applications Disks to the Hard Disk

If you have applications disks that you would like to store on the hard disk after the hard disk has been initialized, the following procedure must be used:

To Copy Additional Applications Disks After Completion of Initialization:

1. Turn the system off.
2. Turn the system back on.
3. Insert the Hard Disk Initialization disk into floppy disk Drive A. The following messge will appear on the screen:

   Do you want to format Drive E (left disk)? [Type Y or N]
4. Type: N The following message will appear on the screen:

   Do you want to copy additional applications to Drive E? Type [Y or N]
5. Type: Y The following message will appear on the screen:

   Please insert the applications diskette to be copied. Press RETURN to continue.
6. Remove the Hard Disk Initialization disk from floppy disk Drive A.
7. Insert the applications floppy disk to be copied into floppy disk Drive A. Press RETURN. The following message will appear on the screen:

   Copy in progress.

   The amount of time it takes to copy the disk will vary depending on the specific disk. At the end of the copy process, the following message will appear:

   Copy complete.

   Do you wish to copy additional applications? [Type Y or N]

8. If you want to copy another applications disk, type: Y and complete step 5 for each applications disk to be copied. If you do not have another applications disk to copy, type: N. The following message will appear on the screen:

   Do you want to format Drive F (right disk)? [Type Y or N]

9. Type N. The following message will appear:

   The preparation of the Hard Disk(s) is now completed.

   Press RETURN to continue.

   Remove the disk from the floppy disk drive and press RETURN. The system will now load the Word Processing software from the hard disk. When the loading is completed a message will appear asking you to enter the time and the date.

10. Type the hour, a slash and the minutes, followed by AM or PM (9/45 AM). Press ENTER. Type the month, day and year separated by slashes (4/18/83). Press ENTER.

    Your terminal is now in Word Processing mode.

Operating the System

After the hard disk has been initialized and you are ready to begin using the system, there are a few start-up procedures to follow:

Powering on the System

BE SURE:

- Your floppy disk drives are empty and the drive doors are closed
- The printer is turned off
- The ON/OFF switch on the CPU (not the Hard Disk Unit) is ON. If it is not, press down the top of the switch. Because the CPU is plugged into the Hard Disk Unit, this switch should be ON at all times.

The ON/OFF switch is located at the right top corner on the back of the Hard Disk Unit.

- Firmly press down the top of the switch.

If there is no software disk in floppy disk Drive A, the system will automatically load the software from the hard disk. Therefore, there is no need to load the system with a program floppy disk as you would normally do on the 500 Series Information Processor without the hard disk option.

Important Note:

In order to complete the exercises in the 12 booklets in the Learning Kit, you must use the software disk provided. The system will first try to load the software from floppy disk Drive A. Therefore, when you are asked to turn the system on and insert the software disk, insert it into floppy disk Drive A. This will be the only time you will have to load the software manually.

Powering on the Printer

The printer ON/Off switch is located on the back of the printer in the bottom right corner.

- Firmly press down the top of the ON/OFF switch.

Inserting a Floppy Disk

The external floppy disk drive gives you the option of storing text on the floppy disk rather than storing it on the hard disk. The floppy disk *must* be formatted before it can be used. This procedure is explained in Section 8 of the 500 Series Information Processor Reference Manual.

To Insert a Floppy Disk:

1. Open the disk drive by pressing the top of the square door.
2. For internal floppy disk drive — insert the disk with the cut-out notch at the left and the labels on the disk facing up.

   For external floppy disk drive — insert the disk sideways with the cut-out notch at the bottom and the labels on the disk facing towards the left.

   Make sure the disk is inserted all the way into the drive.
3. Close the disk drive door slowly. If any resistance is felt when closing the door, DO NOT FORCE THE DOOR CLOSED — repeat steps one and two.

You are now ready to begin using your 500 Series Information Processor. Instructions on how to perform all Word Processing operations can be found in the 500 Information Processor Reference Manual.

To Turn the System Off:

1. Remove all disks from the drives.
2. Turn the system power off by pressing the ON/OFF switch on the back of the Hard Disk Unit. The ON/OFF switch on the CPU should remain ON at all times.
3. Turn the printer power off by pressing the ON/OFF switch on the back of the printer.

Word Processing

Most Word Processing operations are performed exactly as they are performed on the 500 Series Information Processor without the hard disk. There are a few exceptions.

Drive Designations

Whenever operations in Word Processing require designation of disk drives, the designations shown on pages 3 and 4 must be used.

Disk Copy

The disk copy function, which is found under F12 (Utilities), *cannot* be used in conjunction with the hard disks. The copy function cannot be used to copy an entire floppy disk to a hard disk.

Only *single* documents can be copied from a floppy disk to a hard disk by pressing F1 (Index), placing the cursor on the document to be copied, and pressing F8 (Copy Doc). (See the 500 Series Information Processor Reference Manual for more detailed instructions on how to copy a document.)

Format Utility

The Format Utility (CODE + F12, F10) cannot be used to format the hard disks located in Drives E and F. The Format Utility can only be used to format floppy disks.

Functions

The following functions appear in a few of the operator prompts, but are not available to you on the current release of hard disk software:

FONT SELECTION MENU (CODE + F7, F9)
ALT SELECTION MENU (F10, F7)

Sort Index

Due to the large number of documents a disk can index, a Sort Index function is provided, which will sort the index of a hard disk or floppy disk alphabetically by document name.

The 500 will sort the index starting with A, then a, and continue through z. It will then sort by digits, and end with miscellaneous characters such as &, ?, or $.

Once an index on a disk is sorted, it will continue to be sorted permanently. Each time a new document is stored, an old document is deleted or a document is renamed, the index will be alphabetized automatically. Therefore, you must sort the index of a disk only once.

To Sort the Index of a Disk Alphabetically:

1. Press F1 to display the index that you want sorted.
2. Press F3 (Sort Index). A prompt will appear thats asks you to enter the letter of the drive.
3. Type the letter of the disk drive containing the disk to be sorted.
4. Press ENTER.
5. The index will now be sorted alphabetically.

If you receive a message that says DISK FULL -or- NAME ALREADY EXISTS, it means that you cannot sort the index of a disk that is full.

Document Select

The Document Select feature enables you to find a specific document within the index of a disk quickly. You simply enter a document name, and the index will be displayed starting with the document that was entered. Document Select will only work on a sorted index (see "Sort Index Procedures").

To Select a Document Within the Index:

1. Press F1 to display the index in which your document is located.
2. Hold down the CODE key and press the HOME Key. A message will appear which asks you to enter a document name.
3. Type the name of the document you would like to select exactly as it appears in the index.
4. Press ENTER.
5. The index will be displayed, starting with the document name you have just entered.

Back-Up

The Back-up function is used to archive the data stored on the hard disk. The data is copied from the hard disk to floppy disks, which are kept for back-up purposes in the event that data is somehow lost from the hard disk. The floppy disks, which are copied through the Back-up function, cannot be used as word processing data disks — they can only be used to restore the hard disk if it becomes necessary.

The number of floppy disks that will be used for a full hard disk Back-up is shown below:

Size of Hard Disk	**# of Floppy Disks Required for Back-Up**
5 megabyte	Approx. 8
10 megabyte	Approx. 15
15 megabyte	Approx. 25

Back-Up Procedures

The RESET key can be used to interrupt a Back-up. If this is done, a message will appear asking "Do you really want to exit the program?" Type: Y and follow the procedures on "How To Restart An Interrupted Back-up."

1. Press F1 (Index Operations) to display the index for the hard disk located in Drive E.
2. Position the cursor on the document named BACKUP.
3. Press F9 (Run Program). A message will appear:

   Please confirm [Y or N]:
4. Type: Y The following message will appear:

   Is this a continuation of an interrupted back up? [Type Y or N]:
5. Type: N The following message will appear:

   From drive is:
6. Type the letter designation (E or F) of the hard disk you would like to back up from. The following message will appear below the previous message:

   To drive is:
7. Type the letter designation (A or B) of the floppy disk drive you would like to back up to. The following will appear below the previous message:

   Date of backup: (the date will be shown)
   Time of backup: (the time will be shown)
   Description:

8. Next to the word Description:, enter a description of what is on the hard disk (up to 167 characters). DO NOT USE CARRIAGE RETURNS WHILE TYPING THE DESCRIPTIVE TEXT.

9. After you have entered your descriptive text, press RETURN. The following message will appear:

   Do you wish to begin the backup? [Type Y or N]:

10. If you have made an error in your descriptive text, type: N The following message will appear:

    Do you really want to exit the program? [Type Y or N]:

    Type: N Your descriptive text will be erased, and you can now re-enter the correct descriptive text.

11. If your descriptive text is correct, type: Y The following message will be *displayed:*

    Please insert a diskette in drive (the drive designation letter you previously selected will be shown)

    Press RETURN to continue.

12. Insert a floppy disk into the selected drive. (It is not necessary to use a blank, unformatted disk. An old disk containing data may be used, but the disk will be reformatted and all of the data that was on the disk will be lost.) Press RETURN. The following message will appear on the screen:

    Formatting diskette. Please stand by.

    When the formatting is complete, a message will appear on the screen:

    Open and close the door on the TO drive.

    Press RETURN to continue.

13. Open and close the door on the selected floppy disk drive. Press RETURN. The following message will appear:

    Creating files. Please stand by.

    Upon completion, the following messages will appear on the screen:

    Backing up data to disk (the number of the current floppy disk will be shown here) **of** (the total number of floppy disks required for the entire back-up will be shown here)

    Example: Backing up data to disk 1 of 15

    When the first floppy disk has been filled, the following message will appear on the screen:

    Backup complete to disk (#) of (#).
    Please remove and save this diskette.
    Press RETURN to continue.

14. Remove the floppy disk and immediately label it BACK-UP DISK 1. Press RETURN. The following message will appear on the screen:

    Please insert a diskette in drive (selected disk drive will be shown).

15. Repeat steps 11 - 13 until the following message appears:

    This completes the backup of the data on the hard disk. Press RETURN to exit.

16. Press RETURN. The back-up will be completed and your system will be in Word Processing mode. If it is not in Word Processing mode, turn off the Hard Disk Unit (power down) and turn it back on again (power up).

To Restart an Interrupted Back-Up

If the back-up procedure is interrupted before the entire hard disk has been archived to floppy disks, the following procedure should be used to restart the back-up procedure:

1. Press F1 (Index Operations) to display the index for the hard disk located in Drive E.
2. Position the cursor on the document named BACKUP.
3. Press F9 (Run Program). A message will appear:

   Please confirm [Y or N]:
4. Type: Y The following message will appear:

   Is this a continuation of an interrupted backup? [Type Y or N]:
5. Type Y The following message will appear:

   From drive is:
6. Type the letter designation (E or F) of the Hard Disk you would like to back up from. The following message will appear below the previous message:

   To drive is:
7. Type the letter designation (A or B) of the floppy disk drive you would like to back up to. The following message will appear:

   Please insert last successfully completed backup disk.

   Press RETURN to continue.
8. Insert the last completed back up disk into the floppy disk drive. Press RETURN. The following message will appear:

   Do you wish to begin the backup? [Type Y or N]:
9. Type: Y The following message will be displayed:

   Please insert a diskette in drive (the drive designation letter you previously selected will be shown)

   Press RETURN to continue.

Restore

The Restore function is used to transfer all of the data from the floppy diskette archive which you created in the Back-up function back to the hard disk. The Restore procedure can be thought of as the reverse Back-up procedure.

Restore Procedures

The RESET key should *not* be used to interrupt the Restore procedure.

1. Turn the system off.
2. Turn the system back on.
3. Insert your Back-up Disk #1 in floppy disk Drive A and close the drive door. Upon loading, the Restore banner will appear, which asks the following questions:

   From drive is:

   If the Restore banner does not appear, repeat steps one through three.
4. Type the letter designation (A or B) of the floppy disk drive you would like to restore from. The following message will appear below the previous message:

   To drive is:
5. Type the letter designation (E or F) of the hard disk drive that you would like restored. The following message will appear:

   The drive with the select light on is the "TO" drive.

   Is this the correct drive? (Y/N):
6. If the light in the drive that contains the hard disk that you want restored is lit, type: Y The following message will appear:

   Please type the size designation characters of the drive you are restoring:
7. Type the characters that appear on the label located on the back panel of the Hard Disk Unit behind the hard disk drive (E or F) that contains the hard disk you want to restore to. (The first character should be a W with the numbers 05, 10 or 15 following.)

   The following message will appear on the screen:

   Press RETURN to begin formatting the Hard Disk.
8. Press RETURN. The following message will appear:

   Formatting the Hard Disk. Please stand by.

10. Remove the last completed back-up floppy disk and insert a floppy disk. Press RETURN. The following message will appear on the screen:

    Formatting diskette. Please stand by.

    When the formatting is complete, a message will appear on the screen:

    Open and close the door on the TO drive.

    Press RETURN to continue.

11. Open and close the door on the selected floppy disk drive. Press RETURN. The following message will appear:

    Creating files. Please stand by.

    Upon completion, the following messages will appear on the screen:

    Backing up data to disk (the number of the current floppy disk will be shown here) **of** (the total number of floppy disks required for entire back-up will be shown here)

    Example: Backing up data to disk 5 of 15

    When the first floppy disk has been filled, the following message will appear on the screen:

    Backup complete to disk (#) of (#).
    Please remove and save this diskette.
    Press RETURN to continue.

12. Remove and save the floppy disk. Press RETURN. The following message will appear on the screen:

    Please insert a diskette in drive (selected disk drive will be shown).

13. Repeat steps 10 - 12 until the following message appears:

    This completes the backup of the data on the Hard Disk.

    Press RETURN to exit.

14. Press RETURN and the back-up will be completed.

When formatting is completed, the following message will appear:

Please insert a disk in Drive A. Press Return to continue

9. Do *NOT* insert a new disk — leave Back-up Disk 1 in Drive A. Press RETURN The following message will appear:

   Do you wish to begin the restore (Y/N):

10. Type: Y The date of back-up, time, and description you previously entered in the Back-up procedure will appear on the screen. The following message will then appear:

    Restoring data from disk (number of current floppy disk) **of** (total number of disks being restored).

    Example: Restoring data from disk 1 of 15

    When the disk is completed the following messages will appear on the screen:

    Restore from this disk complete.
    Please remove this diskette.
    Press return to continue.

11. Remove the disk. Press RETURN. The following message will appear on the screen:

    Please insert a disk in Drive A.
    Press RETURN to continue.

12. Insert the next floppy disk to be restored onto the hard disk into the floppy disk drive. Press RETURN.

13. Repeat steps 11 and 12 until the last floppy disk has been restored onto the hard disk and the following message will appear:

    This completes the restoration of the data to the Hard Disk. Press RETURN to exit.

14. Press RETURN. The system will return to Word Processing mode.

APPENDIX A
ERROR MESSAGES

Screen Messages

Below is a list of the error messages that display at the top of the screen when a problem occurs. Possible solutions for you to try if you receive one of these error messages are also listed. If you continue to have problems, check your Reference Manual to be sure you are performing the operation correctly.

ERROR MESSAGE	POSSIBLE SOLUTION
Block marker(s) not found may be on disk.	Make sure both block arrows are set and that neither has scrolled onto disk.
Can't clear. You must STORE the document.	The document is already partly stored on disk. Press STORE to complete the storing process.
Can't do that in a header/footer/footnote.	Press RETURN, then continue the operation.
Can't find the document you wanted sorted.	Check that the name of the list is typed correctly in the sort document, and that the list is available.
DISK FULL: Save on another disk.	The disk is filled to capacity. Store document on another disk.
First save the document that was on the screen.	Press STORE to save the document on the screen before you continue on with other work.
Glossary term not found.	The term was not found with that term name in the glossary. Check the name you have typed and check which glossary document you are working in, if you have several stored on the disk.
I am at the end of that file.	Use the software disk with the latest version number, or try again.
Illegal numeric specification.	Change a specification in the sort document. For example, you cannot use both a character and letters in a negator.

ERROR MESSAGE	POSSIBLE SOLUTION
Key field is too long.	A field you are sorting by is too long. Shorten the number of characters in the field.
MARGIN or INDENT values are inconsistent.	Set the margin or indent to the correct side of the opposite margin or indent.
My memory is too full.	Stop one or more of the operations that the system has been instructed to do.
Name too long.	Change the name of the document to less that twelve characters, or recall with the index.
No glossary is defined.	With the Index displayed, put the cursor on the name of the glossary you want to use and press F11:SLCT GLOSS. This defines the glossary to be accessed.
No sort fields have been specified.	Type in the sort document with the fields you want the list sorted by.
Not enough disk space to hold temporary data.	More room is needed on the disk so the sort can be done. Delete some of the documents or copy them onto another disk.
Please put a disk in that drive.	Check or try these: 1. Put a disk in the drive. 2. Close the door of the drive 3. Reseat the disk by opening and closing the drive door.
Put in a valid software disk.	Use the same software that was used to initially start-up the system in drive a.
That document is being edited. You can't delete it.	First store the document you are working on, then delete it from the index.
That document was not found.	If you are reading from the screen, check its name. If recalling from the index, somehow it was not saved. Erase the name, then copy the document from your duplicate copy of the disk if you have one.
That name already exists.	Save the document under a different name. If this message repeats, use a one word name (no spaces) with less than 12 characters.

ERROR MESSAGE	POSSIBLE SOLUTION
That name already exists or the disk is full.	Use a different name or save the document on another disk.
The disk cannot be read.	Check or try these: 1. Put a disk in the drive. 2. Use the correct letter for the drive. 3. Reseat the disk by opening and closing the drive door. 4. If the disk is new, prepare it. 5. Use the copy of the disk; this disk could be bad. 6. If system is performing several tasks at once, stop one or more.
There is not enough memory.	Clear the memory of some unwanted documents if you can and reattempt the sort again.
Use the correct version of software.	Use the software disk with the latest release date.
You didn't specify a document to be sorted.	Type the name of the list you want sorted on the second line of the sort document.
Starting Page not in PAGE INDEX: Press RETURN to continue.	**When paginating and creating a page index for the first time, if RESET is pressed before pagination of the entire document is complete, you must go back and restart pagination from page 1 of the document again.**

Numeric Messages

The numeric error messages appear at the bottom of the screen. When one appears, simply match the number to the chart listed below, then determine the meaning and possible solution. Press RETURN to clear the message from the screen and make the correction.

ERROR NUMBER	MEANING	POSSIBLE SOLUTION
5BDC	Will not accept the new name you have entered.	Be sure that name is not already in the Index and it is correctly entered.
005A	Attempt to change access control of the directory file.	Do not attempt to do this.
005B	Attempt to shrink a write protected file.	Cannot edit write protected file.
005C	The name you entered already exists.	Save under a different name.

ERROR NUMBER	MEANING	POSSIBLE SOLUTION
005D	The Index is filled to capacity.	A document must be erased to make space to save another.
005E	Disk problem exists.	Try one of these: 1. Use *a name that* is different than the one you entered. 2. Save text on another disk because the disk is full.
0011	Disk could not be prepared.	Try another disk to see if disk was bad or check if disk drive is dirty or not working properly.
0012	Disk drive could not access the proper section of the disk.	Disk drive could be faulty.
0013	Error in storing text.	Store text again.
0014	The disk the system was using was removed prematurely.	Reinsert the original disk back in the drive.
0015	Disk could not be read.	Try one of these: 1. Reseat the disk by opening and closing the door. 2. Prepare the disk if it is new. 3. Disk drive might not be working properly.
0016	Text was stored incorrectly.	Restore text again.
0017	Disk is not inserted in the drive or invalid disk drive designation.	Be sure drive you indicated has disk inserted.
0018	The disk is improperly seated in drive or it is a bad disk.	Open and close the disk drive door to be sure it is properly positioned in the drive. If condition still exists, try another disk.
0019	Disk cannot be read.	Check that the disk is inserted properly and has been prepared.

ERROR NUMBER	MEANING	POSSIBLE SOLUTION
0040	The end of the record has been reached.	Be sure you have properly indicated the record size.
0041	File has reached the end.	Check the file size.
0042	Record does not contain any information.	Check the record.
0043	You have attempted to input a block of zero length.	Be sure block you have indicated contains at least 1 character.
0044	You have attempted to delete a record from a print or program file.	These files cannot be deleted.
0045	The file is protected and cannot be changed.	Do not attempt to change the name or size of a write protected file.
0046	File or disk is write protected.	Do not attempt to change the file.
0050	Illegal File name.	Issue a proper file name.
0051	Illegal Diskette name.	Issue another name.
0052	Even though name exists on index, the document was not saved on the disk.	Restore text.
0053	Disk name was not found.	Check to be sure: 1. Disk is properly inserted in the drive. 2. Disk has been prepared. 3. Drive is working properly.
0054	A disk is not available where you have indicated.	Check to be sure: 1. Disk is properly inserted. 2. Disk has been prepared. 3. Drive is working properly.
0055	Device addressed is not a disk.	Check to be sure a proper disk is inserted in the disk drive.

ERROR NUMBER	MEANING	POSSIBLE SOLUTION
0056	Incorrectly attempted to clear or purge a file.	Check for the proper instructions.
0058	Maximum number of records is 0.	The number of records in a list must be at least l.
0060	Attempted to copy a locked file or access a file which is locked to a different task.	This cannot be copied.
0061	Password mismatch.	The word you entered is not the same as the one identified.
0070	Wrong number of parameters in the SET statement.	Select a setting with the correct number of letters or numbers.
0071	Illegal parameter value in the SET statement.	The setting cannot be done. Use a possible setting.
0723	Some text in the list could not read.	Be sure your list is properly formatted.
0725	Sort specifications were not made in the sort document.	Check sort document.
0726	A number you want sorted is too long.	Number to be sorted must be no more than 200 digits.
0727	Expansion list is illegal.	Properly input list.
0735	Not enough space on disk to do sort (records are temporarily stored on disk during sorting).	Make more disk space by deleting some of the documents that are no longer needed, or copy documents to another disk and try the sort again.
0737	Same as 0735	
0738	There are too many records in the list.	Delete some of the records and begin a new list.
0739	A specification for a numeric sort cannot be done.	Do not mix characters and letters in the sort request.

ERROR NUMBER	MEANING	POSSIBLE SOLUTION
0750	Sort document name not entered.	Type the name of the list in question on line 2 of the sort document.
0751	Same as 0735.	
0752	The list was not found on the disk.	Check that the name is typed correctly.
1509	Word not accepted in the dictionary.	Be sure word has been entered correctly.
2406	Document name is too long.	Change the document name to less than the limit.
2407	Document name not correct.	Be sure name is entered properly.
2408	Document is not named.	Type in a name for the document.
2500	The index cannot display.	Check or try these: 1. Use the latest software disk. 2. Reseat the disk by opening and closing the drive door. 3. If the disk is new, prepare it. 4. Check another disk. This disk could be worn out.
2502	No document name.	Type in a name for the document.
2801	The most updated software is not being used.	Check the version of software you are using.
4000	The document on the screen has scrolled on disk and must be saved before you recall another.	Press STORE to save the document that was scrolled.
4001	Store the document that was on the screen.	Press STORE to store the document on the screen.
5000	The margin or indent setting would be on the wrong side of the other margin or indent.	Be sure margins and indents are properly positioned with the others that are set.

ERROR NUMBER	MEANING	POSSIBLE SOLUTION
6000	The disk is full.	Store the text on another disk.
8001	Proper glossary has not been identified.	Place cursor on the glossary document you want to use and press F11: SLCT GLOSS.
8003	You cannot do that operation in a header, footer or footnote.	Press STORE to save your header, footer and footnote, then continue with the operation you want to perform.
8005	A term with that name was not found in that glossary.	Be sure you have typed the name of the text correctly. Also check that you have accessed the appropriate glossary where the term is located.

APPENDIX B
THE FUNCTION KEYS

Appendix B describes all of the function keys listing the "soft key" values when these particular functions are accessed.

F1

INDEX OPERATIONS

F1:SLCT INDX F2:PRINT INDX F5:READ DOC F6:DELETE DOC F7:PRINT DOC F12:MORE

F8:COPY DOC F9:RUN PROGRAM F10:READ BLOCK F11:SLCT GLOSS F12:MORE

Displays the disk index on the screen so any of the nine (9) available index functions can be performed.

F2

SEARCH AND REPLACE

F2:SRCH F3:REPL F4:GLOBAL F5:ENTER SRCH F6:ENTER REP F7:ALL CASES F8:EXACT

The search and replace function is an editing operation which enables the system to search a document for a specific text string and then replace it with other text if required.

F3

GO TO

F1:FRMT MRKR F2:PAGE # F3:NEXT HOME F4:PREV HOME F5:END DOC F6:BEGIN DOC

The GO TO function will allow you to move the cursor to six (6) various positions within a document.

F4

BLOCK OPERATIONS

"Place cursor on first character of block. Press ENTER."
"Place cursor to right of last character of block. Press ENTER."

F1:PRINT F2:PROTECT F3:MOVE F4:COPY F5:STORE F6:STORE GLOSS F7:DELETE

The block operations function enables you to gain increased editing capabilities and ability to define any amount of text to be moved, copied, saved, read, protected or deleted.

CODE
+
F4

COLUMN MODE

"Place cursor on top row of column. Press ENTER."
"Place cursor on bottom row of column. Press ENTER."

F3:MOVE F4:EXCHANGE F5:INSERT F6:DELETE F7:CLEAR

Using the special column mode function, statistical and other column organization will be simplified by using the five (5) available column operations.

F5

TABS

F4:CLEAR PREV TABS F5:SET/REMOVE F6:CENTER F7:RIGHT, or type ALIGNMENT char

All tabs are easy to set and remove using the tab function key. Once this is pressed five (5) different types of tabs can be set.

CODE + F5

MARGIN/INDENT

F5:L MARGIN F6:R MARGIN F7:L INDNT F8:R INDNT F9:END INDNT F10:CNTR INDNT

All formatting of margins and indents is done by this function key. This operation enables you to set both left and right margins as well as various types of indents.

F7

ADJUST

F5:AUTO PAG F6:INTERACTIVE PAG F7:PARA ADJUST F8:DOC ADJUST

This function key serves two purposes. Both pagination and margin adjust is accessed by this key. Various methods are available.

CODE + F7

STATUS MENUS

F7:DOCUMENT STATUS MENUS F8:PRINTER STATUS MENU

The status menus are displayed on the screen by using this function key.

F8

HDR/FTR/FOOTNOTES

F5:FTNOTE F6:RT HDR F7:LT HDR F8:ALL HDR F9:RTFTR F10:LTFTR F11:ALL FTR

Headers, footers and footnotes can be entered in various positions within the text using this function key.

F10

APPLICATIONS

F8: PROGRAM LOAD	F9: FORMS	F10: REC PROC	F11: LINE DRAW
	F6: MAKE	F6: SCREEN MERGE	
	F7: UNMAKE	F7: PRINT MERGE	
	F8: DEF FLD	F8: AUTO	
	F9: RULER	F9: REPORT	
	F10: DEL RULER	F10: NEXT	
	F11: CLEAR	F11: STOP MERGE	

Four separate applications are accessed using this function key. They include Program Load, Forms, Records Processing and Line Drawing.

CODE
+
F10

MATH

F8:PRECISION F9:CALCULATOR F10:VERTICAL F11:HORIZONTAL

The Mathematics function allows you to perform three different types of mathematical operations on the screen. These three functions will help you to do simple calculations on various charts, tables or special calculations to insert into text.

F11

DICTIONARY

F8: LOOK-UP EDIT	F9: SCANNING DICT EDIT	F10: LOOK-UP	F11: SCANNING DICT
F8: ADD ALL WORDS	F8: REPORT	F8: REPLACE WORD	F8: CONTINUE
	F9: ADD ALL WORDS	F9: ADD	F9: LOOK-UP
	F10: DELETE ALL WORDS	F10: DELETE	F10: ADD
		F11: SEARCH	

The dictionary provides a feature to help you with the spelling of words in your text and documents. Two dictionaries are provided: Look-up Dictionary and Scanning Dictionary. With these dictionaries, words can be looked up or text can be scanned for misspellings. Words can also be added or deleted from the dictionary.

F12

EXPLAIN

HOW THE 500 SERIES WORKS: CHOOSE A LETTER

A: INDEX FUNCTIONS
B: COLUMN FUNCTIONS
C: BLOCK FUNCTIONS
D: SETTING TABS
E: SETTING MARGINS
F: STATUS MENUS
G: ADJUST FUNCTIONS
H: HEADERS/FOOTERS/FOOTNOTES
I: SEARCH & REPLACE
J: GO TO FUNCTIONS
K: UTILITIES
L: APPLICATIONS
M: FORMS FUNCTIONS
N: MATH FUNCTIONS
O: DICTIONARY FUNCTIONS
P: RUNNING PROGRAMS
Q: SIMPLE EDITING
R: DELETING TEXT
S: CHAR ENTER
T: GLOSSARY FUNCTIONS
U: CLEARING SCREEN MEMORY
V: STORE
W: READ

Press the letter of the option you wish to learn about (or RESET to leave).

BE SURE TO PRESS ENTER AFTER SELECTING THE CORRECT LETTER.

The explain function is a special aid. It is actually a mini-reference library which you can access during operation to give information and details on all of the system features and operations.

CODE
+
F12

UTILITIES

F7: DOC RECOVERY F8:DIRECT TYPE F9:DISK COPY F10:DISK FORMAT F11:SET DEFAULTS

Five utilities functions are available. They include document recovery, direct type mode, disk copy, disk format and setting the system defaults.

APPENDIX C
CODED FUNCTIONS AND THEIR SYMBOLS

FUNCTION	KEYSTROKES	SYMBOL
Input and Editing		
Centering	CODE + c	⊞
Merge	CODE + m	⅄
Field Mark	CODE + f	{
Adjusting Document and Pagination		
Temporary Hyphen	CODE + - (hyphen)	-
Required Space	CODE + SPACEBAR	•
Temporary Page Break	CODE + t	▯-----
Required Page Break	CODE + r	▮-----
Page Number Code	CODE + #	↑
Divide Document	CODE + /	**NONE**
Printing Commands		
Underscore	CODE + u	_
Bold	CODE + b	▪
Superscript	CODE + e	▲
Subscript	CODE + d	▼
Required Backspace	CODE + BACKSPACE	←
Optional Text	CODE + "." (period)	ρ
Overstrike Text	CODE + o	θ
Stop Print	CODE + , (comma)	**NONE**

APPENDIX D
PRINTWHEEL CHART

NUMBER	TYPE OF PRINTWHEEL	USES
0126*	Standard Word Processing	General Word Processing Short Vertical Bars Legal Characters
0126P	WPS Proportional	Proportional Spacing
0129	ASCII	Line Drawing Long Vertical Bars Basic Greek Characters General Word Processing UKN ESA Bilingual DK/N Special
0132	PS Proportional Spacing	Proportional Spacing General Word Processing Legal Characters

- The printwheel number and name can be found on the frontside of the printwheel around the middle ring.
- The printwheel selection is made in the Printer Status Menu according to the particular operation you are performing. The printwheel number should be entered at the indicated position in the menu.
- The printwheel inserted in the printer should always match the printwheel number that is indicated in the Printer Status Menu.

*Default value

APPENDIX E
GLOSSARY OF TERMS

- A -

ADJUST - To align the margins of a paragraph or document.

ALTERNATING HEADER/FOOTER - Specifying a different header and/or footer for the right and left hand pages of a document.

AUT - The abbreviation for "author" in the disk index.

AUTHOR - The initials of the person who wrote the document.

AUTOMATIC PAGINATION - A method of pagination in which the system will automatically divide the entire document into individual pages.

- B -

BACKGROUND PRINTING - Printing a document stored on disk while continuing to work with other text on the screen.

BACKSPACE - To move back and erase one character.

BIDIRECTIONAL PRINTER - Printer with head that prints in both directions (right to left and left to right).

BLOCK - A defined amount of text that can be moved, copied, printed, saved, read, or deleted.

BOLD PRINT - A form of thick printing which highlights specified text on printout.

BUFFER - The special system memory that can hold up to 6,000 characters. Text that is scrolled is stored in the buffer.

- C -

CALCULATOR MATH - In the math mode, calculates totals as you enter the numbers and operation.

CARD GUIDE - This is used to support small sheets, such as labels or cards, in position for printing.

CENTER INDENT - To indent text in the center between the left and right margins.

CENTER MARKER - A Trace Mode Marker that tells the system to center text on that line.

CENTERED TAB - A tab setting that centers the column below it.

CHARACTER ALIGNMENT TAB - A tab setting which is aligned on a particular character.

CHARACTER ENTER - The editing feature that allows you to insert new information into text that is already typed.

CHARACTER OUT - The feature which enables you to delete unwanted characters or codes without leaving a blank space.

CHARACTER SPACING - The number of characters per inch that is typed by the printer.

CODE KEY - Key that is used in conjunction with other keys to perform specific functions.

COLUMNS MODE - A mode of operation in which columns can be manipulated.

CONTINUOUS FOOTNOTE NUMBERING - Footnote numbering that begins with the number one (1) at the beginning of a document and continuously increments the numbers for each footnote throughout the entire text.

CPS - Characters Per Second. Used to identify the printer speed.

CPU - Central Processing Unit. The base on which the tiltable screen rests. The CPU houses the special circuits which control the interpretation and execution of all of the information processing instructions.

CURSOR - The small white square which appears on the screen and moves from left to right as text is keyboarded. It helps you locate and identify the text you are working on.

CURSOR CONTROL KEYS - The group of keys located to the right of the modified typewriter keyboard which include the cursor direction keys.

- D -

DATA BASE - A list or group of records all about one subject which is used for records processing functions.

DATA DISK - A specially formatted disk which is used to store documents.

DECIMAL IDENTIFIER - A character which indicates a decimal point within a numeric value.

DECIMAL TAB - A tab setting to align columns of figures on a decimal point.

DEFAULT SETTINGS - The preset values set by the system which are always in effect unless permanently changed by the operator.

DELETE - To erase characters from text.

DIRECT TYPEWRITER MODE - Special mode of operation where each character when typed also prints on the paper simultaneously.

DISK - A magnetic storage device.

DISK MANAGEMENT - To set up an effective filing system so that you may retrieve documents quickly.

DISK REGISTER - List of disks and their indexes contained in a 3-ring binder.

DISPLAY - The screen on which text appears when typed.

DOCUMENT ASSEMBLY - The operation of separately storing different sections of text to later assemble together to construct a single document.

DOCUMENT STATUS MENUS - Two lists of specific information that is stored along with each document. The menus are used to select formatting and special document information.

DUAL-SIDED, DUAL-DENSITY - The capacity of the disks used with the 500 Series. Both sides of the disk are used for storage.

- E -

EDIT - To make corrections and change written material.

ERROR MESSAGE - Indication that there is a problem with either a command that was given or with a particular system component or function.

- F -

FIELD - A single piece of information within a record.

FOOTER - Text that is repeated at the bottom of each page of text.

FOOTNOTE - Text that appears at the bottom of the page or at the end of a document and is a description of referenced text within the document.

FOREGROUND PRINTING - Printing the text that is displayed on the screen.

FORMAT LINE - Line which appears at the top of the screen to show the left margin, hot zone, right margin, and tab settings.

FORMAT MARKER - A trace mode marker that tells the system to begin a certain format starting from its position within the text.

FORMS COMPOSITE - The entire form including fields and variable text.

FORMS RULER - A grid which is used to identify the format of the fields in the form.

FORMS TRACTOR FEEDER - Feeds continuously attached and perforated sheets of paper, which are hole-punched on both sides, through the printer using the forms tractor.

FUNCTION KEYS - The 12 keys located above the Modified Typewriter Keys which are used to perform various functions on the system.

- G -

GLOBAL SEARCH & REPLACE - The ability to search through an entire document for all instances of a specific text string, then replace it with other text.

GLOSS - The key on the Screen/Numeric Keypad which accesses a term from the glossary.

GLOSSARY - A document that contains terms and names for abbreviations that can be quickly assessed.

GRID - A ruler indicating individual lines and spacing on a form.

- H -

HEADER - Text that is repeated at the top of each page of text.

HOME POSITION - The first character position on the first line of text in a document. During GO TO function, HOME position is the first character on the first line of a screenload of text.

HORIZONTAL MATH - In the math function, calculates totals across columns of numbers.

HOT ZONE - The area before the right margin where word-wrap and hyphenation decisions are made.

HYPHENATE - To break a word at a syllable with a hyphen.

- I -

INDENT - A section of text that is moved inwards from either the left or right margins.

INDEX - A listing of all of the documents stored on the disk.

INPUT CONTROL PAGE - A menu which describes the field numbers and the type of information the field will include within the record.

INSERT - To add characters into text.

INTERACTIVE PAGINATION - A method of pagination in which the operator can make a judgement as to where the page break will be.

- J -

JUSTIFICATION - Format option which spreads out every line of text to fit evenly between the left and right margins.

- L -

LEADERING CHARACTER - An alpha character which precedes a numeric value.

LINE DRAWING MODE - Operation which gives the ability to create graphics on the screen by using certain keys on the Screen/ Numeric Keypad.

LINE SPACING - The amount of space the printer will leave between lines of text.

LINES PER INCH - The number of lines in a vertical inch of space during printout.

LIST - A group of records which detail certain information to be used with the records processing operations.

LOOK-UP DICTIONARY - A dictionary within the system that contains thousands of the most commonly used words. This can be accessed at any time to check the spelling of a word.

- M -

MARGIN - Border that surrounds the text on a sheet of paper. This includes space on the left and right as well as the top and bottom.

MEMORY - An internal system area that is used for storage of information.

MERGE - Feature which permits automatic combining of text from two separate, stored documents during printing or screen operations.

MERGE CODE - A special code which is inserted to indicate where text is to be merged.

MODIFIED TYPEWRITER KEYS - Set of keys that are similar to the keyboard on a standard typewriter.

MULTI-COPY SELECTOR - This is a selector on the printer which is used when printing multiple copies (carbon sets).

MULTI-HIT BOLD - A style of bold printing in which each printer character is hit a number of times in the same place.

- N -

NEGATIVE INDENTIFIER - A character or symbol that precedes or follows a numeric value to indicate a negative number.

NUMERIC KEYPAD - The set of keys that when accessed have a numeric value when depressed and are positioned on the keyboard like an adding machine.

- O -

OPTIONAL TEXT - A defined section of text which can either be printed or not printed with the document.

OVERSTRIKE CHARACTER - The character selected to strikeover a section of text to show a change has been made in a document.

- P -

PAGE BREAK CODE - Code used to indicate where a page will end. It can either be a temporary or required page break.

PAGE HOT ZONE - The smallest amount of lines that the system will allow for a paragraph division during pagination.

PAGE NUMBER CODE - The code used to indicate where an automatic page number is to be located.

PAGINATION - The process of identifying the line where pages will end.

PAPER BAIL RELEASE - The part of the printer that is used to position the paper bail against or away from the platen.

PAPER LENGTH - The length of a sheet of paper, multiplied by the number of lines per (6 or 8) at which the printer is set.

PAPER RELEASE LEVER - The lever on the printer which releases pressure from the platen so paper can be pulled out of the printer without tearing.

PERSONALIZED TEXT - A document which has places where personalized information can be filled in.

PITCH - The horizontal spacing of characters.

PLATEN - This supports the paper during printing.

PLATEN KNOB - This knob is located on the right side of the printer and is used to roll the paper into the printer and make manual adjustments of the paper position.

PRECISION SETTING - In the math function, the number of decimal places which the answer will be carried out to (From 0-9).

PRINTER STATUS MENU - A menu used to select printing formats for the text before printing.

PRINTWHEEL - A print element where characters are engraved at the end of spokes. The printwheel provides 96 printable characters including letters, numbers and symbols. A variety of typestyles are available on different printwheels.

PROGRAMMING - A special sequence of instructions which is executed to accomplish some specific task.

PROMPT - An instructional message that appears on the first line of the screen. This is used to guide the operator on what the Function Key represents and what it will do.

PROPORTIONAL SPACING - Printing of text where each alphanumeric character is given a weighted and variable amount of space. The output has a print-like appearance.

- R -

RECORD - A group of fields of information about a certain subject. One of the components of a list.

RECORDS PROCESSING - Capability which provides for maintenance, updating, and special use of frequently used lists of information.

RESET - The key which is used to discontinue an operation.

REQUIRED HYPHEN - A hyphen that is permanently inserted into a word which requires a hyphen to appear at all times. (ex. Mother-in-Law)

REQUIRED PAGE BREAK - A page break that is entered and will not be deleted during pagination.

REQUIRED SPACE - A space that connects two words so they will not be separated.

RIGHT ALIGNMENT TAB - A tab setting that will align text on the rightmost character.

- S -

SCANNING DICTIONARY - This dictionary contains approximately 35,000 words and is used to scan a document for spelling errors.

SCANNING DICTIONARY REPORT - A report indicating the number of words contained in the Scanning Dictionary.

SCREEN KEYS - The screen keys, located to the right of the Modified Typewriter Keys, perform various screen functions.

SCREEN MERGE - The combination and assembly of text on the display screen.

SCROLLING - The ability to allow the operator to view a larger body of text that can be displayed at one time. As additional lines of text appear at the bottom, lines from the top move up and off the screen. Text can also move off the screen sideways.

SELECTION DOCUMENT - A special page designed to specify which records to extract from a list. This function is only available on the Model 520.

SEPARATOR - The character which is used to separate digits within a number.

SHADOW BOLD - A form of bold printing where each printed character is hit again a fraction of an inch away from the first hit to create a kind of shadow effect on each letter.

SHEET FEEDER - A storge bin that holds stationery or paper which is fed automatically, one sheet at a time.

SOFTWARE DISK - The disk which contains all of the instructions so the machine can function.

SORT - The process of dividing items of data into groups according to a particular common characteristic. Sorting may be done in numerical, alphabetical, or other logical sequence.

SORT DOCUMENT - Identifies the document to be sorted and the criteria for the sort process.

SPECIAL KEY - A key used in conjunction with other keys to access an alternate character set.

STANDARD TAB - A tab that is set on the format line where text will align.

STOP CODE - A code which enables you to stop printing at a specified place in the text.

SUBSCRIPT - A character printed at one-half or one-quarter of a line above the normal line spacing.

SUPERSCRIPT - A character printed at one-half or one-quarter of a line below the normal line spacing.

- T -

TAB - *A location set on the format line that the cursor will move to* when the TAB key is pressed.

TEMPORARY PAGE BREAK - A page break that will be removed *during repagination.*

TILT MECHANISM - A mechanism at the base of the screen which is used to adjust the angle at which the screen is positioned.

TRACE MODE - The special screen operation which shows where special formats and other symbols are located in the text.

TRACE MODE MARKERS - A symbol hidden in text which gives the system a special instruction. These markers can only be seen in the trace mode.

TYPEOVER - The process of typing over a character with another character.

- U -

UNDERSCORE - To underline text to be highlighted.

- V -

VERTICAL MATH - In the math mode, calculates totals down a column of numbers.

- W -

WORD WRAPAROUND - Enables you to enter text at high speed without having to make any end of line decisions. The system will enter a return automatically and wrap any word that passes the right margin to the beginning of the next line.

APPENDIX F
TROUBLESHOOTING

	PROBLEM	CAUSE	SOLUTION
Block Operations	The last character of the block is deleted when performing a block function.	The size of the block was not identified correctly.	Always place the cursor after the last character of a block when identifying the size.
	When moving a blocked paragraph, the text is squeezed together with no space when it is moved.	The blank line after the paragraph was not identified as part of the block.	Position the cursor on the 1st character of the next paragraph when identifying the end of the block.
Columns	None of the column mode functions operate when selected.	The columns are set up incorrectly.	Be sure all columns have been set up using tabs and entries have tab characters preceding them.
	When entering the text in the last column, it wraps to the next line.	The right margin must be set far enough to the right before entering a column so it will not be affected by word wrap.	Readjust right margin so it is wider than the longest entry in the last column.
	After selecting the columns operations, the cursor can only be moved vertically.	The cursor can only be moved vertically when identifying the column size.	Complete the identification of the column size, then the cursor will be movable in all directions.
	All of my column positions changed when I moved one column.	Other columns will wrap around to fill in the vacant position when moving a column.	Adjust the columns accordingly.
	When trying to insert a column then input the text, the text did not align properly.	Tab positions must be set for all columns which will be input.	Insert a tab at the new column location.

	PROBLEM	CAUSE	SOLUTION
	After editing the columns, my columns were not formatted properly.	Inserting and deleting text can cause columns to become misaligned.	Perform the adjust function by pressing F7, F7.
Dictionary	I entered a word into the dictionary but it did not appear there when I went back to look it up.	You entered the word into the Scanning Dictionary instead of the Look-Up Dictionary. Remember there are two (2) dictionaries available.	Be sure you enter words into the appropriate dictionary.
	When looking up a word, the dictionary displayed the beginning of the dictionary and not the letter closest to the word I was looking up.	The cursor was not positioned directly after the word to be looked up.	Position the cursor directly after the word you are looking for.
	When manually editing a word while scanning text, the scanning operation was discontinued.	The system automatically exits the dictionary when you begin manual editing.	Press F11, then F11 again to continue the scanning from the point where it left off.
Document Storage	The document name I typed was not accepted.	The length was larger than 34 characters or that name is already used on the index.	Check the name to be sure it is unique and only 34 characters in length.
	When using the READ key to recall a document, it did not appear on the screen.	The document name did not fit the criteria for recalling text in this manner.	Be sure the document name is only up to 11 characters and contains no spaces or punctuation.
	I could not update the document that was read from the index.	The READ key was used to recall the text and documents cannot be updated if they are read in this manner.	Read the document directly from the Index using the F5: READ DOC operation.

	PROBLEM	CAUSE	SOLUTION
Editing Text	Text closed up when deleting a word using DEL WORD.	DEL WORD deletes the word including the space and any punctuation after it.	Press CHAR ENTER to add any additional spaces.
	No blank line was left after pressing DEL LINE.	DEL LINE deletes the entire line, including the carriage return.	Insert any required lines by using CHAR ENTER and the RETURN key.
	The cursor will not move to the bottom of the screen using the CURSOR DOWN key.	There are no returns past the last line of text. The cursor will not move into a "blank" portion of the screen.	Enter returns or additional text after the last line on the screen.
	Characters are deleted as the cursor is moved across the screen.	The SPACE BAR is being used to move the cursor across the text.	Use the CURSOR RIGHT key to move the cursor.
	Characters are deleted when BACKSPACE is pressed.	The BACKSPACE key is an editing key which serves as an erase key.	Use the CURSOR LEFT key to move backwards in text.
	When entering text a big gap appears and the text is dropped down a line.	Adding text causes the line length to be increased past the right margin.	Adjust the text you are editing to realign the margins.
Formatting	The speed of the cursor is slowed down considerably.	Format markers are contained on the line where you are typing.	Begin typing on the next line or await characters to appear.
	The left margin setting does not appear on the format line.	The cursor is positioned at the left margin.	Move the cursor one position to the right.
	The first line of the indented text does not indent at all.	The setting of the indent was not at the proper position.	Always set an indent 1 line above the text to be indented or directly before it.

	PROBLEM	CAUSE	SOLUTION
	Double-spacing was selected in the status menu but the text still remains single-spaced on the screen.	Selected line spacing only appears on printout. The system automatically calculates the line spacing for pagination.	Print the text and the line spacing will be correct.
Glossary	The glossary term will not be recalled.	The proper glossary has not been accessed. OR Special coded characters were accidentally deleted upon editing.	Select the appropriate glossary you are using through the index. OR Be sure all codes are included for each glossary term. Re-enter them if necessary.
	After loading the software, the glossary that was selected last was not accessed.	The system defaults to the main glossary when the software is loaded.	Access the glossary desired after the software is loaded.
	The last character of the glossary term was dropped.	The text was not identified properly when blocking it for entry.	Be sure to place the cursor after the last character when blocking the text to be inserted in the glossary.
Index Operations	The document name that was entered does not appear on the Index.	There is more than one page to your index since only 17 document names can appear on the screen at one time.	Press CODE +↓ to access the next page of the index.
	The author's initials do not appear on the index.	The author's initials are only displayed if they are entered in the Document Status Menu.	Enter the appropriate initials in the Document Status First Line Formats Menu then store it with the document.

	PROBLEM	CAUSE	SOLUTION
	The index on my data disk does not appear on the screen when selecting index functions.	The indexes on the drives must be specifically accessed. Remember there are two drives (dual models) which are "a" and "b."	Access the "b" index through the select index operation.
	A very lengthy document only appears as one (1) page on the index.	The document has not been paginated using the pagination operation.	Paginate the document to see the correct page count.
Loading Software	Software does not load when disk is inserted.	The disk is inserted incorrectly.	Always place the disk into the system with the label facing left and the small notch at the bottom. Insert the disk all the way into the drive so it is seated properly then close the door.
	The prompts for the date and time do not appear after the software has loaded.	The screen illumination is too low.	Turn the contrast control knob on the back of the screen to adjust the brightness.
	The proper time does not appear in the index.	The time was typed with a colon separating hour and minutes.	Use a slash (/) to separate hour and minutes (04/45) when entering the time.
Mathematics Operations	The mathematics operations did not work at all when selected.	The columns were not set up with decimal tabs. Only decimal tabs can be used.	Set decimal tabs in the column positions.
	The cursor did not move to the first number to calculate it.	The TAB key was not used to move to the first value to be calculated before entering the mathematics mode.	Press the TAB key to move to the first location.

	PROBLEM	CAUSE	SOLUTION
	My answers do not align properly.	There is no blank column with a decimal tab setting for the answer.	Add another "blank" decimal tab column at the end for all answers.
	The system subtracted a value instead of adding it.	The value was seen as a negative number. The system will recognize -, ( ) < > as negative in computing an answer.	Be sure values to be added do not contain these characters, unless they are negative values.
	When pressing the plus key to add, the answer displays on the screen.	The "+" is an uppercase symbol above "=".	Press SHIFT + "+" to add a number or the "+" key on the NUMERIC keypad.
Pagination	When performing interactive pagination, I could not move the cursor down to make a selection.	The cursor has stopped at the highest number of lines indicated in the status menu. You can only move your cursor upwards.	Use the CURSOR UP key to make the selection where the page break should be inserted.
	A lot of extra blank lines appear on the bottom of each page when printing out a document.	The page length and number of lines per page was not calculated correctly.	Be sure that all headers and footers and number of lines per page add up to the total number of lines included on the sheet of paper.
	The text begins directly after the header and/or footer I entered.	No blank lines were included in the header and/or footer to compensate for the blank space in between.	Enter blank lines at the beginning and end of your header and/or footer.
	My header and/or footer only appeared on every other page.	Right headers/footers appear on only odd numbered pages and left headers/footers only appear on even numbered pages.	Select header/footer All to have headers and/or footers appear on each and every page.

	PROBLEM	CAUSE	SOLUTION
	No footnotes appeared at the bottom of the page.	The status menu was answered incorrectly.	Be sure the answer is "N" for "footnotes" at end of document selection.
Power On	When you press the button on either the console or the screen, no lights come on.	The power cord is loose.	Make sure the power cord is plugged in securely.
Printing	When selecting to print, nothing happens and no text is printed.	The printer has not been turned on.	Be sure to press the printer switch when beginning use of the system.
	The light on the printer begins flashing in the middle of printing a document.	The printer is out of ribbon.	Insert a new ribbon and printing will continue from the point where it left off.
	Specific letters, numbers or other characters do not print clearly or are out of position.	The printwheel is broken or dirty.	Clean or replace the printwheel.
	The page prints with improper margins.	The margins are improperly set.	Check the format line and Printer Status Menu for the proper margin settings.
	Characters print out at an angle on the paper.	The paper has not been inserted evenly or the multiple copy setting is improperly set and the sheet is slipping.	Reinsert the paper properly and be sure the multiple copy selector is appropriately set.
	The paper crumples and jams as the text is printed.	The paper bail was not lifted when printing began.	Be sure paper bail is pulled forward when beginning printing at the top of a sheet of paper.

	PROBLEM	CAUSE	SOLUTION
Records Processing	I couldn't edit one of my fields when creating a record.	Records cannot be edited during input. Individual fields can only be edited after the entire record has been entered.	Finish entering the entire record then go back and make corrections.
	Records do not merge with text.	Field markers may have been deleted from the record upon editing.	Be sure all records are properly formatted.
	After SORT has been initiated, the system seems to hang-up.	The SORT operation takes a while as all text must be transferred to different parts of the disk.	Be patient and wait for operation to be completed.
	Only one record merged when doing a screen merge.	The system only merges 1 document at a time. You must let it know when you're ready for the next one.	Access Records Processing and select F10: NEXT.
	System will not function after completing a merge operation.	The merge was discontinued in the middle and not was completed.	Access Records Processing and select F11: STOP MERGE.
	The correct records were not selected from the list in a selective merge.	The selection criteria was not specified correctly in the Selection Control Page.	Check the Selection Control Page and set it up properly.
Screen	A curved line appears on the screen but no text appears.	Text has scrolled to the left and the screen is now displaying the far right hand side of the 256 character wide screen.	Use the CURSOR LEFT key to move back to the left margin.
	The characters on the screen appear very bright/dim.	The screen illumination is not set properly.	Turn the contrast control knob on the back of the screen to adjust the brightness.

	PROBLEM	CAUSE	SOLUTION
	The text did not appear justified on the screen after I selected it in the status menu.	The text to be justified must be adjusted after the selection has been made.	Adjust the text to be justified.
	Lines of text disappear off the screen as I type.	Text is scrolling upwards as the screen will only display 17 lines of text.	Use the cursor control keys to move through all of the text and view it.
Search & Replace	Uppercase versions of a word were not replaced during the search and replace operation.	The appropriate type of search was not selected.	Select an ALL CASES SEARCH before typing the search string.
	A storage prompt appeared when I selected a global search & replace.	The document that is being searched is larger than the buffer limit.	Answer the Storage appropriately and the global search & replace will be performed.
Status Menus	The Printer Status Menu Selections change after the document has printed.	The Printer Status Menu cannot be stored with the document so selections other than the default settings must be made before each printing.	Make Printer Status Selections before printing, or change default values for selections you use often.
	Only 3 characters can be entered for the author in the Document Status Menu.	Only 3 characters are allowed for this entry.	Type the author's initials to identify the document.
	The selection that I made was deleted when I moved to the next line in the menu.	ENTER was not pressed after the selection was typed.	Press ENTER after typing the new selection.
	When pressing RETURN, the cursor would not to move to the next selection and my docuument returned to the screen.	RETURN will not move the cursor through the menu selections.	Use the CURSOR DOWN and CURSOR UP keys move through the Status Menus.

	PROBLEM	CAUSE	SOLUTION
Tabs	I set tabs on the line, then changed my mind and tried to delete them. The system would not let me clear all tabs.	The clear all tabs function will not clear tabs set on the same line. Only previously set tabs will be deleted.	Move the cursor to the next line to clear all tabs.
	I pressed TAB to insert a tab, my cursor just moved to the next tab setting without inserting a tab symbol.	You were not in Insert Mode. You must be in insert mode to insert a tab.	Press CHAR ENTER before pressing the TAB key.
	The characters I typed at the tab setting did not align properly.	The characters do not align until you tab to the next column position.	Press TAB to move to the next tab setting or RETURN to go to the next line.
Text Entry	Text entry is very slow and characters do not appear on the screen immediately.	Cursor is on Line 1 or on a line with a lot of format markers. (See in TRACE.)	Begin typing text on line 2 or on the next line.
	Words are wrapping and leaving large spaces at the end of the line.	The hot zone is too large.	Shorten the hot zone setting to produce a tighter right margin.
	Bold and underline codes appear surrounding text but it is not underlined or bolded on the screen.	These features appear only on printout. Only coded symbols appear on the screen.	Print your document to see underlined and bold text.
	Lines on the screen extend beyond the right margin when text is supposed to be justified.	Special coded characters are in the line and take up a character space. These are deleted upon printout and the text will be properly aligned.	Print out the document and the text will align properly.

Miscellaneous

PROBLEM	CAUSE	SOLUTION
When pressing ENTER to acknowledge a command, a zero appears on the screen.	The numeric mode has accidentally been accessed.	Press the NUMERIC key to resume normal screen operations.
The system will not accept the data disk name I have entered.	There can be no spaces in the name of the data disk.	Retype the data disk name correctly.
The text does not wrap when I am using the direct type mode.	RETURNs must be entered when using the direct type mode. It is just like using a standard typewriter.	Enter a RETURN after each line.
The line drawing mode did not work after I selected it through the applications function.	The NUMERIC key was not pressed.	Press the NUMERIC key to access the line drawing mode.
I could not store any text or access the Index on my new data disk.	The data disk was not prepared. A data disk must be specially formatted before it can be used.	Prepare the data disk by entering the utilities function and formatting the disk.

CATEGORY	IF THIS HAPPENS	POSSIBLE CAUSE	SOLUTION
BLOCK OPERATIONS	Data corruption occurs after moving a block of text to line 1.	This is caused by buffered keystrokes. The system automatically buffers keystrokes when a key (such as the UP ARROW key) is held down continuously during a BLOCK MOVE.	Move blocks of text to line 2 and avoid continuously holding the cursor keys down during a BLOCK MOVE.
BLOCK OPERATIONS	The LINE COUNTER is not accurate after using BLOCK OPERATIONS.		Go to the beginning of the document to reset the LINE COUNTER.
ERROR MESSAGES	The message PROBLEM WITH DISKETTE OR DRIVE. ERROR CODE 15H OR 18H, PRESS RETURN TO CONTINUE OR CODE + RESET TO RESTART OPERATIONS displays during a a disk copy operation.	The workstation is unable to read from or write to a disk during a diskette copy. This can occur if the disk is damaged. If frequent disk error occur, the disk drives should be checked by EOSC Field Engineering.	When a disk error occurs while copying disks: 1. Open the drive doors and reseat both disks. 2. Close the doors and press RETURN. If the error is corrected the COPY PROCESS will continue. If the error message repeats, the software must be reloaded. To do this: 3. Remove the data disks and insert the SOFTWARE DISK into Drive A. 4. Press CODE + RESET and the workstation will reload the software.
ERROR MESSAGES	The message PROBLEM WITH DISKETTE OR DRIVE. ERROR CODE 15H OR 16H, PRESS RETURN TO CONTINUE OR CODE + RESET TO RESTART OPERATIONS displays when scrolling through text.	The workstation has encountered an unreadable sector in the document.	If a disk error occurs while in a document: 1. Open the drive door and reseat the disk. 2. Close the door and press RETURN.

CATEGORY	IF THIS HAPPENS	POSSIBLE CAUSE	SOLUTION
ERROR MESSAGES (CONTINUED)			If the error is corrected you can continue working with the document. If the error message displays again, the workstation is unable to read the document and software must be reloaded. To do this: 3. Write down the page and line number at which the error occurred. 4. Open the door on the B drive and press CODE + RESET to reload the software. 5. Read the document that contains the error to the screen from the Index. 6. Carefully scroll or GO TO the line above where the error occurred. 7. Store the portion of text above the error as a separate document by using the DIVIDE DOCUMENT function (CODE + /). 8. The portion of text below the error is unuseable. You must power the workstation down again and reload software.
EXPLAIN TEXT	The following areas of EXPLAIN TEXT contain errors: 1. BLOCK OPERATIONS (1st screen): Step 1--Define the Block to be "stored" should be "printed". 2. BLOCK OPERATIONS (4th screen): "F4" (Store Gloss) should be "F6". 3. SEARCH & REPLACE (1st screen): Step 2--"F2" (Enter Search) should be "F5".		

CATEGORY	IF THIS HAPPENS	POSSIBLE CAUSE	SOLUTION
EXPLAIN TEXT (CONTINUED)	4. UTILITIES (3rd screen): The instructions given to copy a disk with the hard disk are misleading.		A floppy disk can only be copied if the hard disk unit contains two external floppy disk drives.
FORMS	The workstation appears to lock-up after a FORM document is read to the screen using the READ key or the READ BLOCK function.	This is caused by an unusual format marker that is positioned on line 1 of the FORM document.	Press DEL MEM (DEL SCRN) to unlock the workstation. The following procedure can be used to remove the unusual format marker from line 1 of the FORM document: 1. Read the FORM document to the screen from the Index with F5 (Read Doc). 2. Unmake the form. 3. Turn TRACE ON. 4. Make the form. (This will illiminate the unusual format marker from the FORM document.) 5. STORE the FORM document. (You can now use the READ key or the READ BLOCK function with this document. Note: When this procedure is used, the TAB key will not work properly until the cursor is moved to line 2.
H/F/F	A document containing HEADERS and/or FOOTERS will not print.	Either the HEADER or FOOTER contains more than 1,155 characters.	Do not exceed 1,155 characters per HEADER or FOOTER.
H/F/F	Data corruption appears when a HEADER or FOOTER is read.	This may occur when a footnote stored in the glossary is recalled into a HEADER or FOOTER.	Do not recall a footnote from the glossary into a HEADER or FOOTER.

CATEGORY	IF THIS HAPPENS	POSSIBLE CAUSE	SOLUTION
H/F/F	Data corruption appears when typing long footnotes.	This should only occur if additional footnote text is typed after the MEMORY FULL message is displayed.	After receiving the MEMORY FULL message, store the footnote and be sure not to go back and add additional text to it at a later time.
H/F/F	Footnote text that is split between two pages does not print when a page range is selected to print the page that contains the second half of the footnote.	This occurs because the instruction for the footnote appears on the page before.	Start printing from the page where the footnote begins.
H/F/F	The footnote left margin does not indent as it should.	There may be an END INDENT format marker within the footnote. The END INDENT format marker then cancels the "built-in" footnote indent.	Avoid placing END INDENTS into footnotes.
INDEX OPERATIONS	Garbage characters print while an index is printing.	This occurs when CODE + DOWN ARROW is touched during a PRINT INDEX operation.	Do not touch CODE + DOWN ARROW while an index is printing.
INDEX OPERATIONS	The index prints one line lower each time multiple indexes are printed when a sheet feeder is used.	This occurs only when multiple indexes are printed.	Touch RESET on the sheetfeeder after each index has been printed.
INDEX OPERATIONS	Error message 005D, PRESS RETURN TO CONTINUE displays while sorting the index.	This error message will display when the File Management System Index (an internal software index) is full.	Store a blank screen and then resort the index.
INPUT/EDIT	Data corruption occurs when a large amount of text is deleted (such as 11 pages of a 12 page document) and then a large amount of text is reinserted.		When a large amount of deletion is required use the DIVIDE DOCUMENT function to separately store the text that is no longer needed, or use BLOCK OPERATIONS to separately store the smaller amount of text.
INPUT/EDIT	CENTER INDENTED text does not center after it is adjusted.	This occurs when the CENTER INDENT is set on the same line as the adjusted text.	Set CENTER INDENTS on the line above the text to be centered.

CATEGORY	IF THIS HAPPENS	POSSIBLE CAUSE	SOLUTION
INPUT/EDIT	Pressing the STORE key displays a "greater than" symbol and does not store text.	This usually occurs after the PROGRAM LOAD function (F10, F8) is used to load a lower level of software.	Press the #1 key on the NUMERIC keypad to store the document and then power the workstation down and reload software.
PAGINATION/ PAGE INDEX	The message STARTING PAGE NOT IN PAGE INDEX, PRESS RETURN TO CONTINUE appears at the completion of pagination.	RESET was used to stop interactive pagination (while creating a page index) and then pagination was resumed from a point other than the beginning of the document.	Restart pagination from page 1, line 1 when creating a page index.
PRINTING BACKGROUND	The correct range of pages will not print or the document will not print	The document was paginated with a complete page index and then repaginated with an interrupted page index.	Restart pagination from page 1, line 1 when creating a page index.
PRINTING BACKGROUND	A range of pages print as if a coded command instruction was entered (for example, all the text printed is underscored or bolded). A range of pages will not print at all in background.	A coded print command is positioned on line 1, character position 1 of a document. If the coded print command is an optional text code, no pages will print. (This only occurs with documents that are paginated with a page index and printed in background.)	Start text with coded commands on line 2 of the document and repaginate the document from page 1, line 1 to update the page index.
PRINTING BACKGROUND	All of these occur at the same time: -- A range of pages will not print in background. -- PRINT DELAYED FOR PAGE SEARCH message appears. -- Disk drive lights go out.	A HEADER or FOOTER format marker is positioned before a NEW PAGE format marker. (This only occurs with documents that are paginated with a page index and printed in background.)	1. Press STOP PRINT to cancel operation. 2. Use BLOCK OPERATIONS to move the HEADER or FOOTER format marker to the right of the NEW PAGE format marker. 3. Repaginate the document from page 1, line 1 to update the page index.
PRINTING BACKGROUND	The workstation locks-up when an attempt is made to print a range of pages in background.	A MULTI-HIT or NUMBER OF HITS format marker was deleted from a document. (This only occurs with documents that are paginated with a page index and printed in background.)	Power workstation down, reload software and repaginate the document from page 1, line 1 to update the page index.

CATEGORY	IF THIS HAPPENS	POSSIBLE CAUSE	SOLUTION
PRINTING BACKGROUND	Pages from a document will not print in background.	A page(s) which does not exist (such as page 9 of a 7 page document) is sent to the printer and then changed to the correct page(s). (This only occurs with documents that are paginated with a page index and printed in background.)	After a non-existent page number is set in the PRINTER STATUS MENU, set it back to 1 before entering the correct page(s).
RECORDS PROCESSING	The right margin is not honored during a PRINT MERGE operation (text extends beyond the right margin).	The DOCUMENT STATUS format marker is missing from the MERGE document.	Insert a DOCUMENT STATUS format marker onto line 1 of the MERGE document.
RECORDS PROCESSING	Indented text prints at the left margin during a PRINT MERGE.	This may occur if a footnote is read during or prior to starting a PRINT MERGE. (This only occurs when indents are created with spaces rather than tabs or indents.)	Use tabs, indents or coded spaces in a MERGE document to insure indented text prints correctly.
RECORDS PROCESSING	An attempt to start a PRINT MERGE will not work.	A previous PRINT MERGE was stopped using the STOP PRINT key.	If a PRINT MERGE is to be terminated, press F10, F10, F11 (Stop Merge).
RECORDS PROCESSING	RESET will not erase the Records Processing Option Line.	A PRINT MERGE was stopped and then the Records Processing Option Line was accessed again.	Touch RETURN to exit from the Records Processing Option Line.
RECORDS PROCESSING	The right margin is not honored during a MERGE operation.	The PITCH was changed on a blank screen before starting the MERGE operation.	Change the PITCH after the MERGE operation and then adjust the text.
RECORDS PROCESSING	The DOCUMENT STATUS format marker appears at the end of a MERGE output.	This occurs when: -- the pitch is changed on line 1 with TRACE ON, -- TRACE is then turned OFF and -- a MERGE operation is started on line 1.	Either change the pitch after the MERGE OPERATION is completed and adjust the text, or move the DOCUMENT STATUS format marker to the beginning of the document using BLOCK OPERATIONS.

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